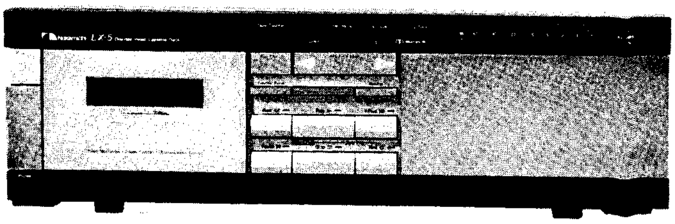
NAKA-00099

Nakamichi

Service Manual

Nakamichi LX-5

Discrete Head Cassette Deck



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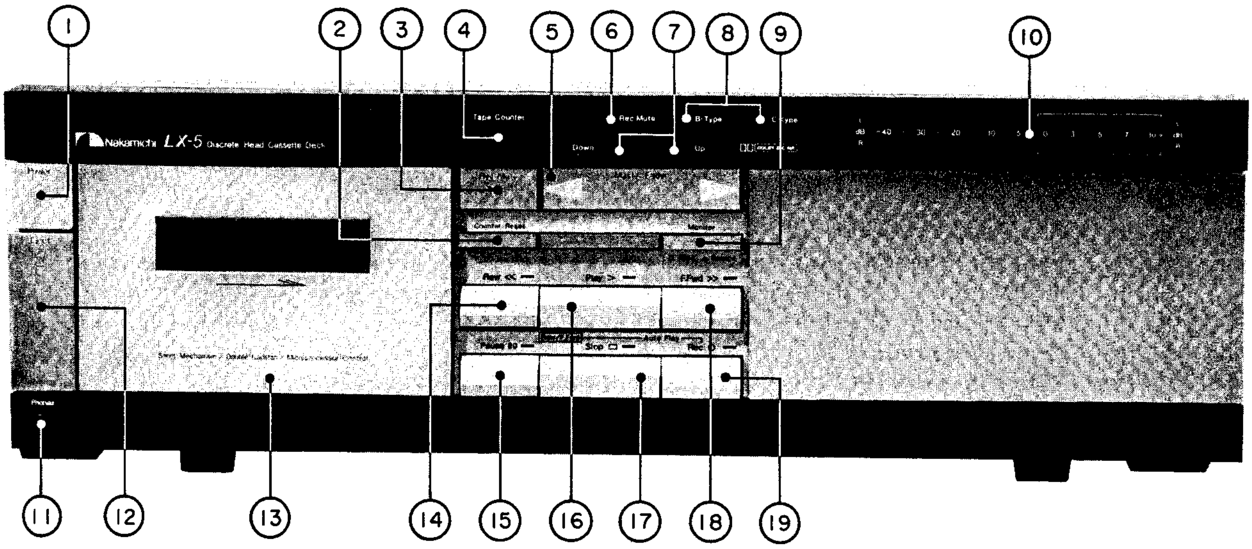
1. GENERAL

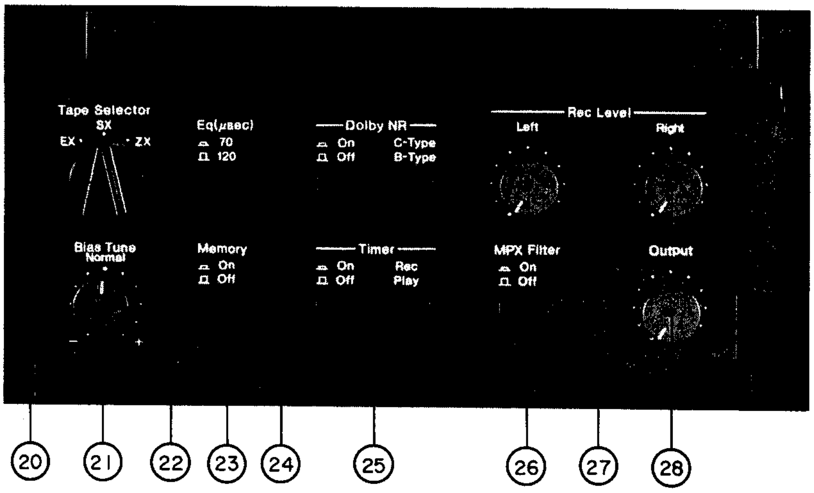
1.1. Control Functions

The Nakamichi LX-5 control functions are shown below:



①
②
③
④
⑤
⑥
⑦
⑧
⑨
⑩
Nakamichi LX-5 Discrete Head Cassette Deck
Tape Counter
Rec Mute
B-Type
C-Type
Down
Up
⑪
⑫
⑬
⑭
⑮
⑯
⑰
⑱
⑲

Fig. 1.1 Front View



Tape Selector
SX
EX
ZX
Eq(μsec)
70
120
Dolby NR
On
Off
C-Type
B-Type
Rec Level
Left
Right
Bias Tune
Normal
–
+
Memory
On
Off
Timer
On
Off
Rec
Play
MPX Filter
On
Off
Output
⑳
(21)
(22)
(23)
(24)
(25)
(26)
(27)
(28)

Fig. 1.2 Front View (Hinged Panel Opened)

1. Power Switch
2. Counter Reset Button
3. Rec. Mute Button
4. Tape Counter
5. Master Fader Control
6. Rec. Mute Indicator
7. Master Fader Indicators
8. Dolby NR Indicators
9. Monitor Switch
10. Peak Level Meters
11. Headphone Jack
12. Eject Button
13. Cassette Holder
14. Rewind Button
15. Pause Button
16. Play Button
17. Stop Button
18. Fast-Forward Button
19. Record Button
20. Tape Selector Switch
21. Bias Tune Control
22. Eq. Switch
23. Tape Start Memory Switch
24. Dolby NR Switch
25. Timer Switch
26. MPX Filter Switch
27. Input Level Controls
28. Output Level Control

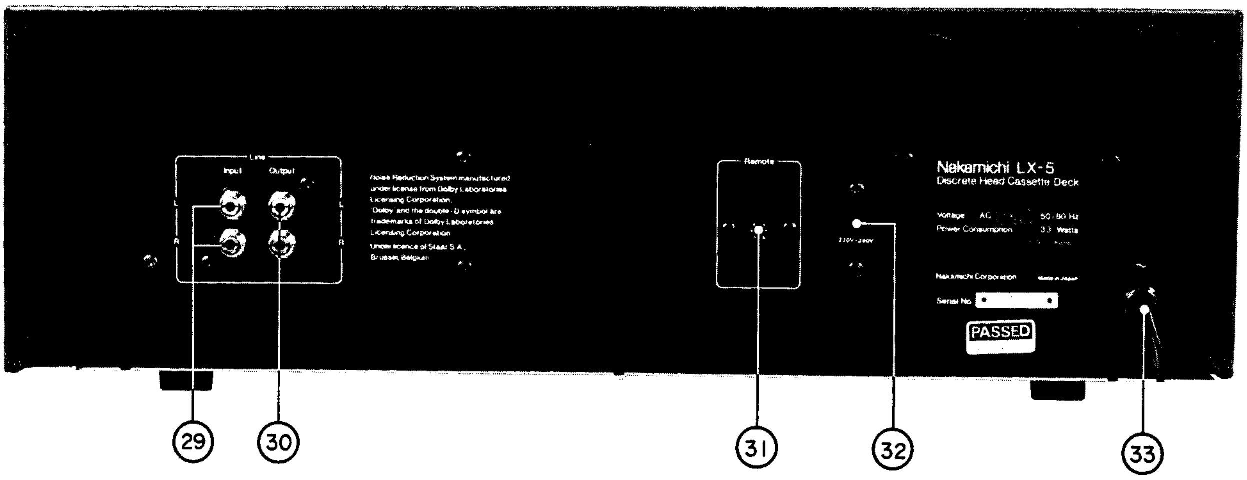

Line
Input
Output
Remote
Nakamichi LX-5
Discrete Head Cassette Deck
PASSED
29
30
31
32
33

Fig. 1.3 Rear View

29. Input Jacks
30. Output Jacks
31. Remote Control Jack
32. Voltage Selector
33. Power Cord

1.2. Voltage Selector

Voltage selector is installed on the rear panel for Other Version of the Nakamichi LX-5. This voltage selector can select either 120 V or 220-240 V at customer's disposal.

2. REMOVAL PROCEDURES

2.1. Top Cover Ass'y

Refer to Fig. 2.1.

(1) Remove F01 and F02, then disassemble F03 (Top Cover Ass'y).

2.2. Bottom Cover Ass'y

Refer to Fig. 2.1.

(1) Remove F04, then disassemble F05 (Bottom Cover Ass'y).

2.3. Cassette Case Cover Ass'y

Refer to Fig. 2.1.

(1) Push the Eject Button to open the Cassette Case Ass'y.

(2) Pull out F06 (Cassette Case Cover Ass'y) upwardly.

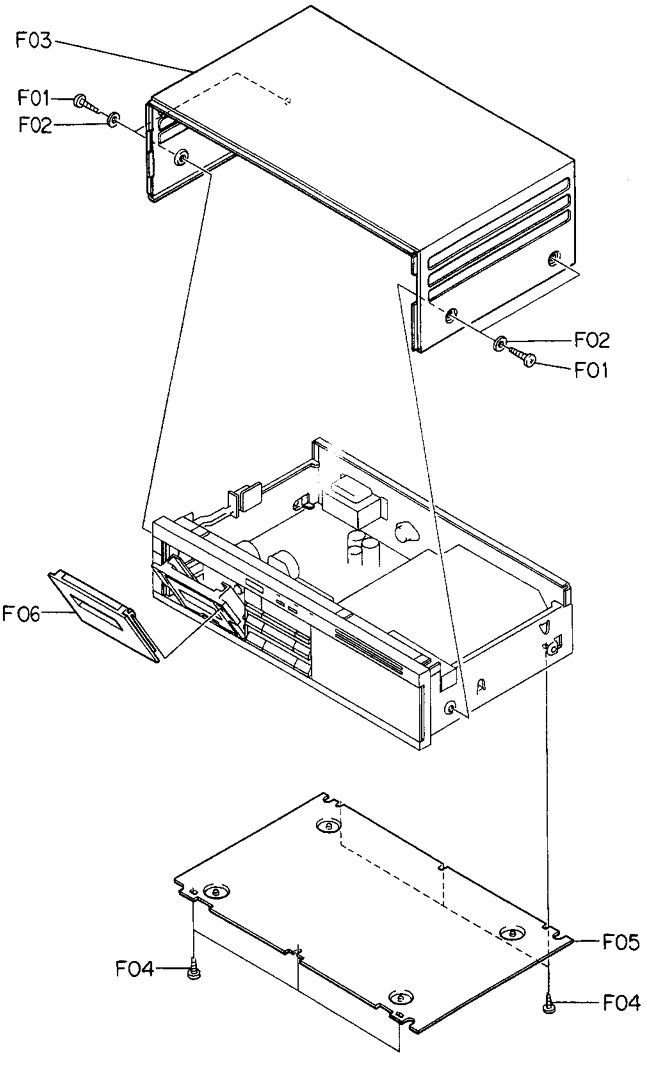


Fig. 2.1

2.4. Front Panel Ass'y

Refer to Fig. 2.2.

(1) Refer to Fig. 2.1. Remove Top Cover Ass'y and Bottom Cover Ass'y referring to items 2.1 and 2.2.

(2) Pull out F01 (Volume Knobs) and remove F02, then disassemble F03 (Front Panel Ass'y including 6 connectors).

2.5. Mechanism Ass'y

Refer to Fig. 2.2.

(1) Remove Front Panel Ass'y referring to item 2.4.

(2) Remove F04, then disassemble F05 (Power Switch P.C.B. Ass'y).

(3) Remove F06 (Power Switch Joint Bar) by releasing the self-interlocking pin of Power Switch Joint Bar from F07 (Power Switch P.C.B. Ass'y).

(4) Refer to Bottom View A. Remove F08, then turn F09 (Dolby NR P.C.B. Ass'y) over as an arrow head.

(5) Remove F10, F11 and F12, then disassemble F13 (Mechanism Ass'y including 5 connectors).

2.6. Headphone Jack Ass'y

(1) Remove F14, then disassemble F15 (Headphone Jack Ass'y).

(2) Remove F16 and F17, then disassemble F18 (Headphone Jack).

2.7. Logic & Power P.C.B. Ass'y

Refer to Fig. 2.3.

(1) Refer to Fig. 2.1. Remove Top Cover Ass'y and Bottom Cover Ass'y referring to items 2.1 and 2.2.

(2) Remove 7 connectors and the wires connected by wrapping from F02 (Logic & Power P.C.B. Ass'y).

(3) Remove F01, then disassemble F02 (Logic & Power P.C.B. Ass'y).

2.8. Dolby NR P.C.B. Ass'y

Refer to Fig. 2.3.

(1) Refer to Fig. 2.1. Remove Top Cover Ass'y and Bottom Cover Ass'y referring to items 2.1 and 2.2.

(2) Remove the wires connected by wrapping from F04 (Dolby NR P.C.B. Ass'y).

(3) Remove F03, then disassemble F04 (Dolby NR P.C.B. Ass'y) by releasing the self-interlocking pin of the P.C.B. Supporters.

2.9. Main P.C.B. Ass'y and Amp. Switch P.C.B. Ass'y

Refer to Fig. 2.3.

(1) Refer to Fig. 2.2. Remove Front Panel Ass'y referring to item 2.4.

(2) Remove F05, then disassemble F06 (Amp. Shield Cover Plate).

(3) Pull out F07 (Selector Knob) and F08 (Switch Knobs).

(4) Remove F09 and F10, then disassemble F11 (Main P.C.B. Ass'y and Amp. Switch P.C.B. Ass'y).

(5) Remove F12, F13 and F14, then disassemble F15 (Main P.C.B. Ass'y).
(6) Remove F16, F17 and F18, then disassemble F19 (Amp. Switch P.C.B. Ass'y).

2.10. Monitor Switch P.C.B. Ass'y

Refer to Fig. 2.3.

(1) Refer to Fig. 2.2. Remove Front Panel Ass'y referring to item 2.4.
(2) Remove F20, then disassemble F21 (Monitor Switch Shield Cover).
(3) Remove F22 and F23, then disassemble F24 (Monitor Switch P.C.B. Ass'y).

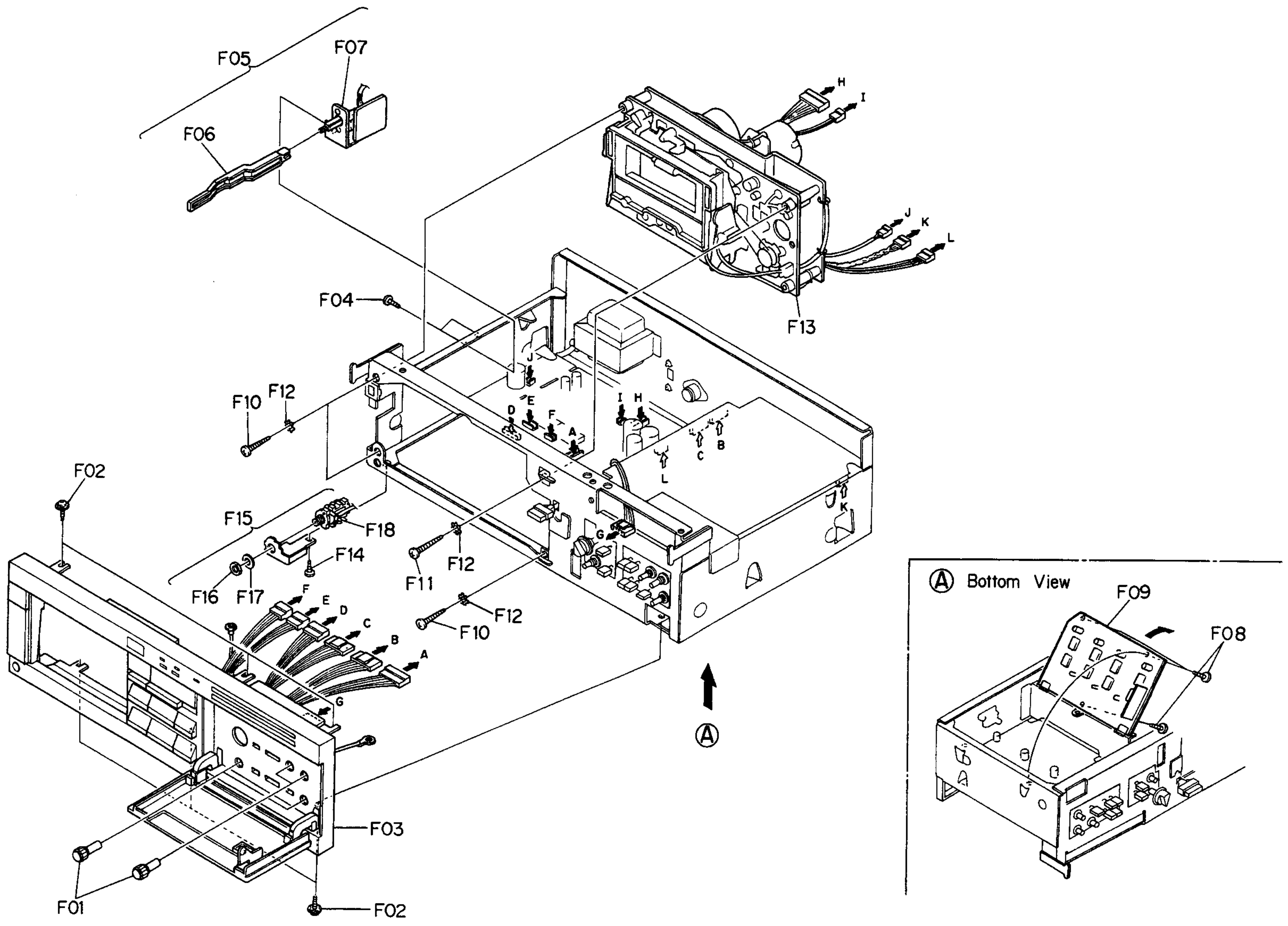

F05
F07
F06
H
I
J
K
L
F04
F13
F10
F12
D
E
F
A
I
H
C
B
L
F02
F15
F18
F14
F16
F17
F11
F12
F10
F12
F
E
D
C
B
A
G
Ⓐ
F03
F01
F02
Ⓐ Bottom View
F09
F08

Fig. 2.2

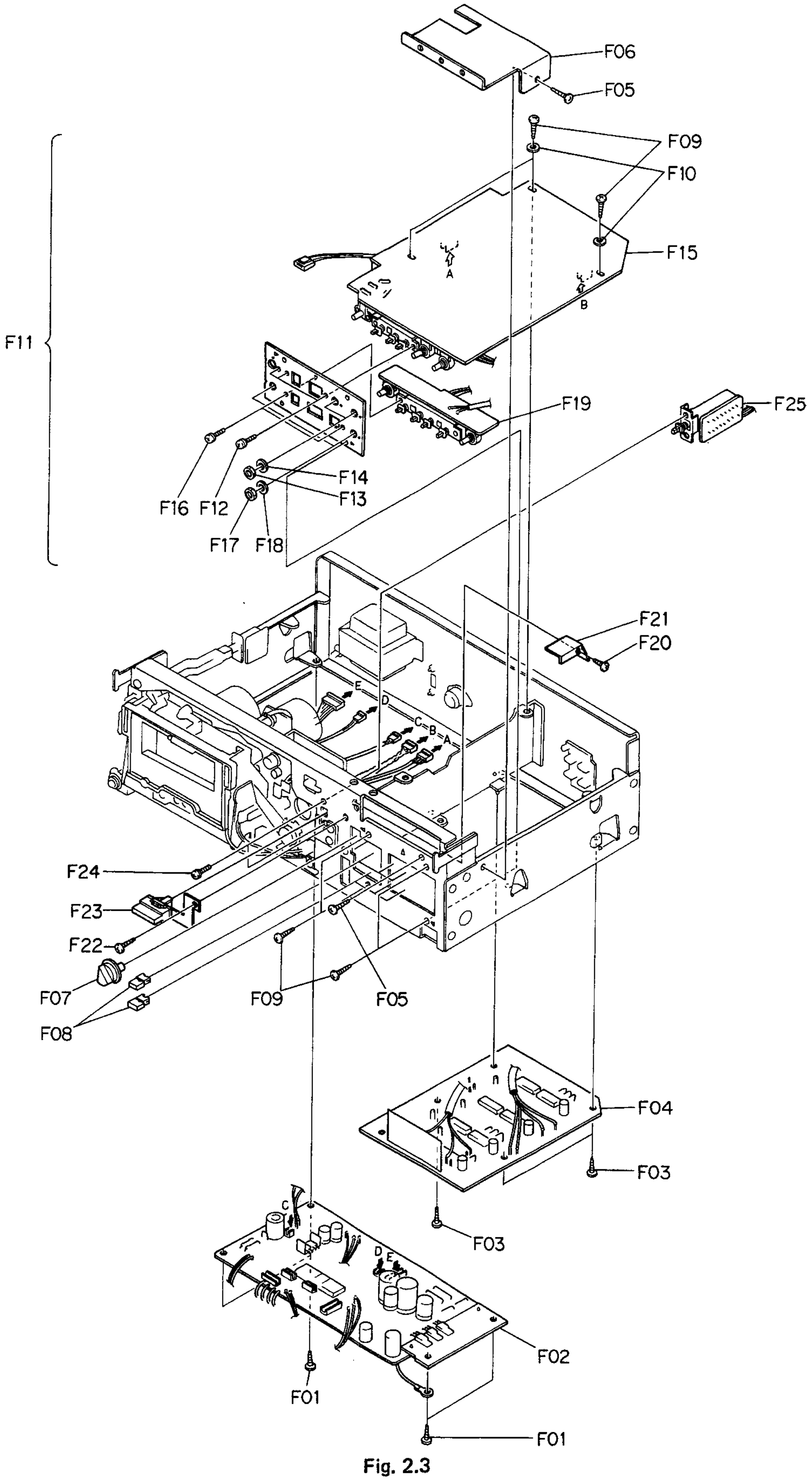

F06
F05
F09
F10
F15
A
B
F11
F19
F25
F16
F12
F14
F13
F17
F18
F21
F20
E
D
C
B
A
F24
F23
F22
F07
F08
F09
F05
F04
F03
F03
C
D
E
F02
F01
F01

Fig. 2.3

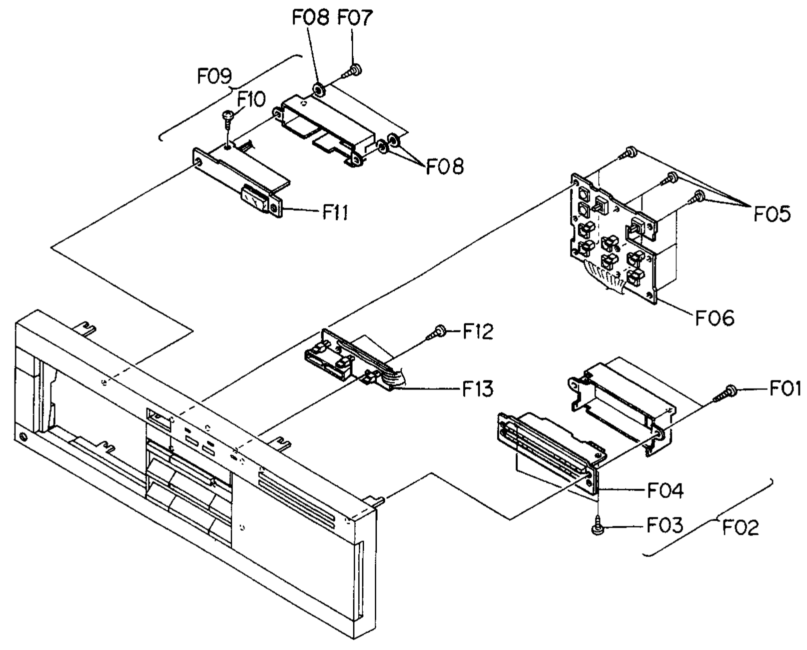


Fig. 2.4

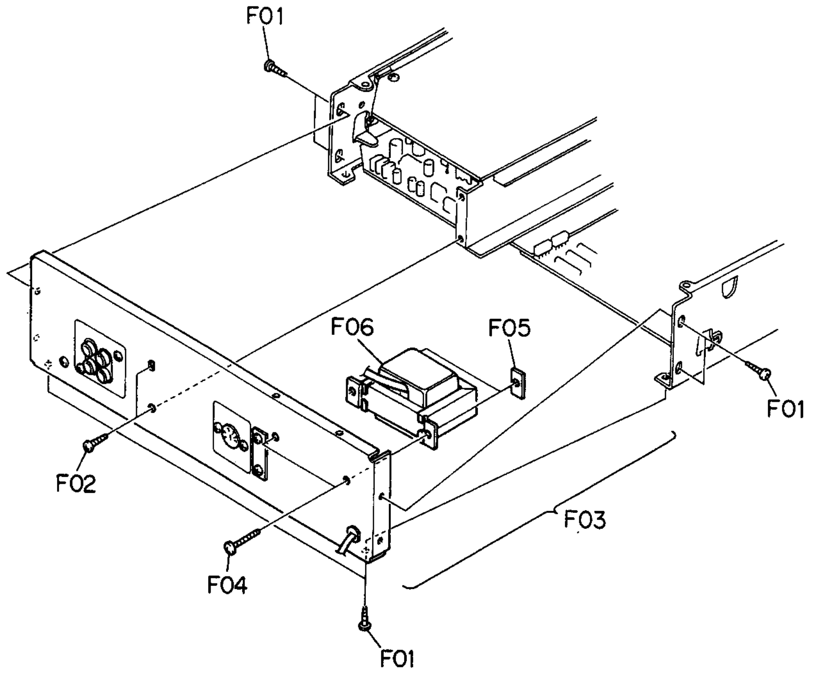


Fig. 2.5

2.11. LED Level Indicator Ass'y, Control Switch P.C.B. Ass'y, Counter P.C.B. Ass'y and LED P.C.B. Ass'y

Refer to Fig. 2.4.

(1) Refer to Fig. 2.2. Remove Front Panel Ass'y referring to item 2.4.

(2) Remove F01, then disassemble F02 (LED Level Indicator Ass'y).

(3) Remove F03, then disassemble F04 (Indicator P.C.B. Ass'y).

(4) Remove F05, then disassemble F06 (Control Switch P.C.B. Ass'y).

(5) Remove F07 and F08, then disassemble F09 (Counter P.C.B. Ass'y).

(6) Remove F10, then disassemble F11 (Counter-1 P.C.B. Ass'y and Counter-2 P.C.B. Ass'y).

(7) Remove F12, then disassemble F13 (LED P.C.B. Ass'y).

2.12. Rear Panel Ass'y

Refer to Fig. 2.5.

(1) Refer to Fig. 2.1. Remove Top Cover Ass'y and Bottom Cover Ass'y referring to items 2.1 and 2.2.

(2) Remove F01 and F02, then disassemble F03 (Rear Panel Ass'y).

2.13. Power Transformer

Refer to Fig. 2.5.

(1) Refer to Fig. 2.1. Remove Top Cover Ass'y and Bottom Cover Ass'y referring to items 2.1 and 2.2.

(2) Remove F04 and F05, then disassemble F06 (Power Transformer).

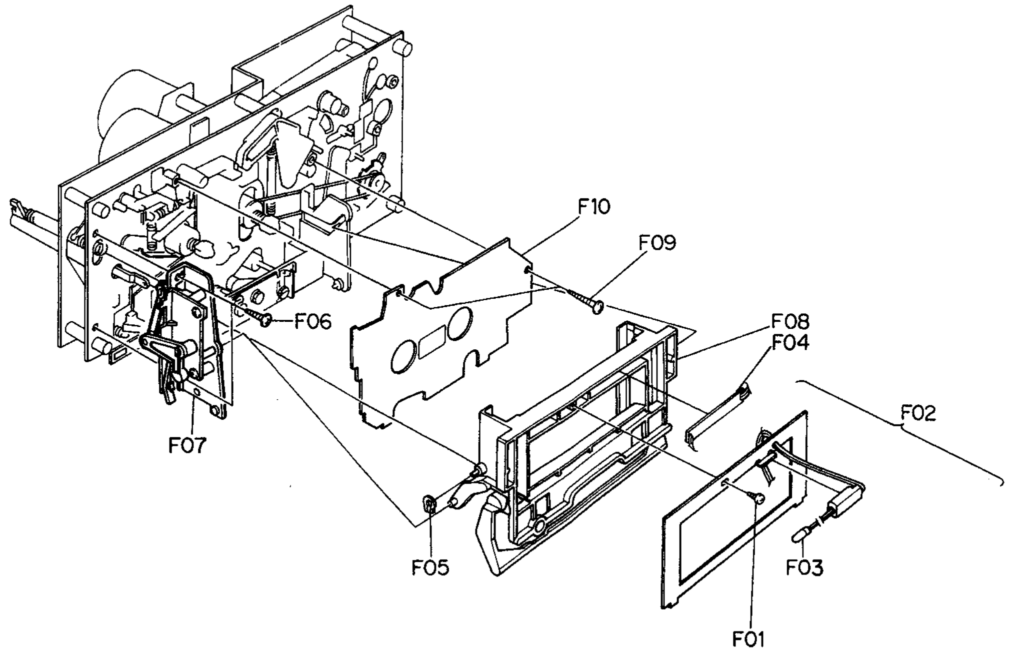


Fig. 2.6

2.14. Cassette Case Ass'y and Cover Plate Ass'y

Refer to Fig. 2.6.

(1) Refer to Fig. 2.2. Remove Mechanism Ass'y referring to item 2.5.

(2) Remove F01, then disassemble F02 (Cassette Case Plate Ass'y).

(3) Remove F03 (Cassette Case Lamp) from Cassette Case Plate, then pull out F04 (Lamp P.C.B.) from F08 (Cassette Case Ass'y).

(4) Push the Eject Button to open the Cassette Case Ass'y.

(5) Remove F05 and F06, then disassemble F07 (Cassette Case Holder L Ass'y) by releasing the self-interlocking pin of Damper Lock Arm and F08 (Cassette Case Ass'y).

(6) Remove F09, then disassemble F10 (Cover Plate Ass'y).

2.15. Capstan Motor Ass'y and Flywheel Ass'y

Refer to Fig. 2.7.

(1) Refer to Fig. 2.2. Remove Mechanism Ass'y referring to item 2.5.

(2) Remove F01, F02 and F03, then disassemble F04 (Flywheel Holder Ass'y) and F05 (Capstan Belt).

(3) Remove F06, then disassemble F07 (Capstan Motor Ass'y).

(4) Remove F08, then disassemble F09 (3P Lug Terminal).

(5) Remove F10 (Supply Flywheel Ass'y), then disassemble F11 (Take-up Flywheel Ass'y).

(6) After removing both Flywheel Assemblies, disassemble F12 (Thrust Washer 3mm), F13 (Thrust Washer 2.6mm), F14 (Flange Thrust Cap) and F15 (Flange Thrust Spring).

2.16. Sub Mechanism Chassis Ass'y

Refer to Fig. 2.8.

(1) Refer to Fig. 2.7. Remove Flywheel Holder Ass'y referring to item 2.15.

(2) Remove F01, F02 and F03, then disassemble F04 (Sub Mechanism Chassis Ass'y).

2.17. Control Motor Ass'y and Reel Motor Ass'y

Refer to Fig. 2.8.

(1) Remove Sub Mechanism Chassis Ass'y referring to item 2.16.

(2) Remove F05, then disassemble F06 (Control Motor Ass'y).

(3) Remove F07, then disassemble F08 (Reel Motor Ass'y).

2.18. Cam Control Volume

Refer to Fig. 2.8.

(1) Remove Sub Mechanism Chassis Ass'y referring to item 2.16.

(2) Remove F09, then disassemble F10 (Volume Coupler).

(3) Remove F11 and F12, then disassemble F13 (Cam Control Volume).

2.19. Reel Hub Ass'y and Idler Ass'y

Refer to Fig. 2.8.

(1) Remove Sub Mechanism Chassis Ass'y referring to item 2.16.

(2) Remove F14 (Reel Hub Head), then disassemble F15 (Reel Hub B Ass'y), F16 (Reel Hub Take-up Ass'y), F17 (Reel Hub Supply Ass'y), F18 (Back Tension Ass'y) and F19 (Back Tension Spring).

(3) Remove F20, then disassemble F21 (Idler Ass'y).

2.20. Cam Drive Gear and Control Cam

Refer to Fig. 2.8.

(1) Remove Sub Mechanism Chassis Ass'y referring to item 2.16.

(2) Remove F22, then disassemble F23 (Cam Drive Gear).

(3) Remove F24, then disassemble F25 (Counter-Load Arm Ass'y).

(4) Remove F26, then disassemble F27 (Control Cam).

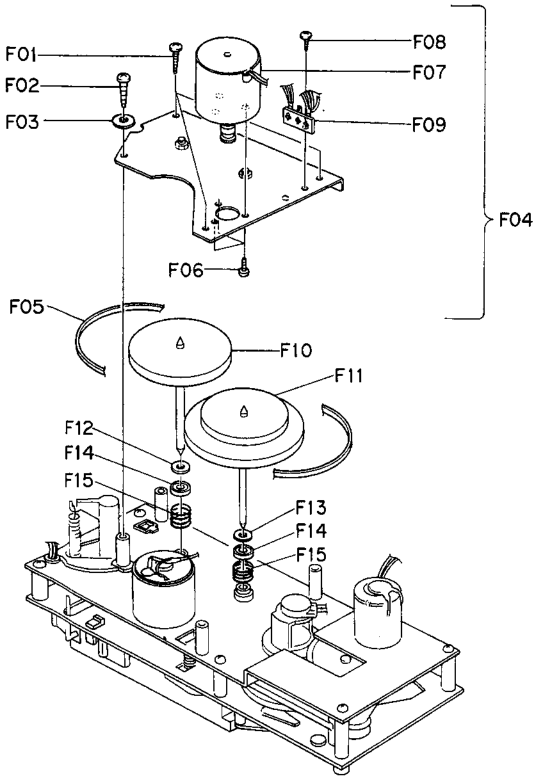

F01
F02
F03
F08
F07
F09
F04
F06
F05
F10
F11
F12
F14
F15
F13
F14
F15

Fig. 2.7

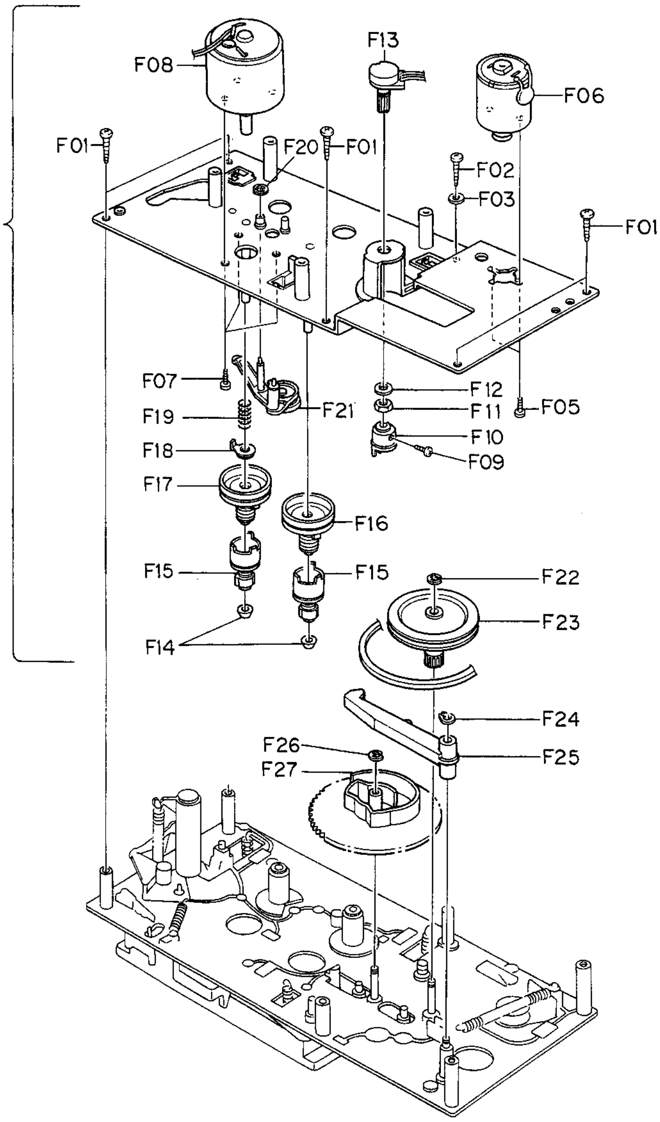

F08
F13
F06
F01
F20
F01
F02
F03
F04
F01
F07
F12
F19
F21
F11
F05
F10
F18
F09
F17
F16
F15
F15
F22
F23
F14
F24
F26
F27
F25

Fig. 2.8

2.21. Head Mount Base Ass'y

Refer to Fig. 2.9.

(1) Refer to Fig. 2.6. Remove Cassette Case Ass'y referring to item 2.14.

(2) Remove F01, then disassemble F02 (Head Mount Base Ass'y).

2.22. Erase Head, Pressure Roller and Tape Guide

Refer to Fig. 2.9.

(1) Remove Head Mount Base Ass'y referring to item 2.21.

(2) Remove F03, then disassemble F04 (Erase Head).

(3) Remove F05, then disassemble F06 (Supply Pressure Roller).

(4) Remove F07, then disassemble F08 (Supply Tape Guide).

(5) Remove F09, then disassemble F10 (Take-up Pressure Roller).

(6) Remove F11, then disassemble F12 (Take-up Tape Guide).

2.23. Playback Head Ass'y and Record Head Ass'y

Refer to Fig. 2.9.

(1) Remove Head Mount Base Ass'y referring to item 2.21.

(2) Turn F13 by 90° by pushing it, then disassemble F14 (Playback Head Ass'y).

(3) Turn F15 by 90° by pushing it, then disassemble F16 (Record Head Ass'y).

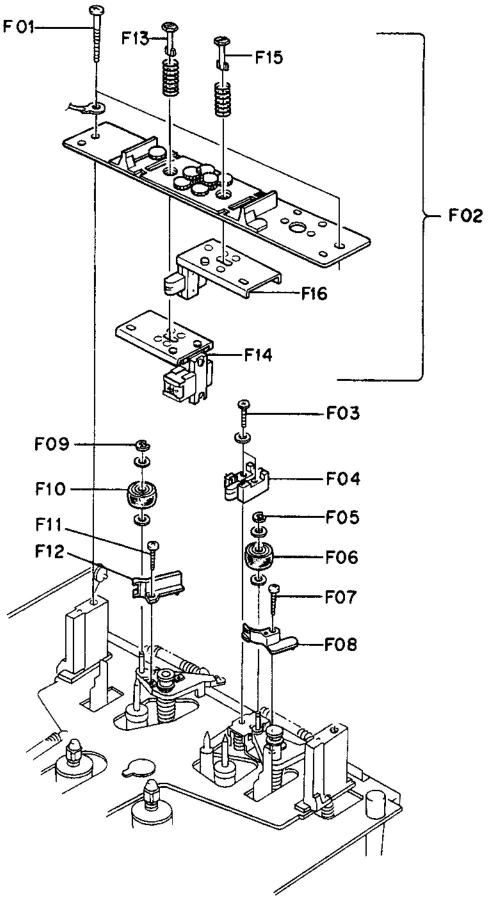


Fig. 2.9

3. MEASUREMENT INSTRUMENTS

(1) Audio Generator (20 Hz – 200 kHz)
(2) AC Millivolt Meter (with dB measures)
(3) Oscilloscope (DC – 5 MHz)
(4) Distortion Meter
(5) Speed & Wow/Flutter Meter
(6) Frequency Counter (DC – 1 MHz)
(7) Ohm Meter
(8) DC Volt Meter
(9) AC Volt Meter
(10) Torque Gauge (DA09013A)
(11) 15 kHz Azimuth Tape (DA09004A)
(12) 3 kHz Speed & Wow/Flutter Tape (DA09006A)
(13) 1 kHz Track Alignment Tape (DA09007A)
(14) 400 Hz Level Tape (DA09005A)
(15) 20 kHz PB Frequency Response Tape (DA09001A)
(16) 15 kHz PB Frequency Response Tape (DA09002A)
(17) 10 kHz PB Frequency Response Tape (DA09003A)
(18) Reference EXII Tape (DA09066A)
(19) Reference SX Tape (DA09025A)
(20) Reference ZX Tape (DA09037A)
(21) Tilt Check Gauge M-9039 (DA09039A)
(22) EH Tilt Check Gauge M-9040 (DA09040A)
(23) EH Stroke Check Gauge M-9051 (DA09051A)
(24) Stroke Check Gauge M-9047 (DA09047B)
(25) Record Head Mounting Gauge M-9048 (DA09048A)
(26) Back Tension Gauge (DA09055A)
(27) Tension Arm Adjustment Cassette (DA09056A)
(28) Audio Analyzer T-100
(including Distortion, Wow/Flutter, Speed, Oscillator and dB meters)

Note: (10) – (28) are the products of Nakamichi Corporation.

4. MECHANICAL ADJUSTMENTS

4.1. Mechanism Control Cam Adjustment

Before adjustment, disassemble the Front Panel Ass'y, then remove the Cover Plate referring to items 2.4 and 2.14.

(1) Offset Adjustment of Control Motor Driver

(a) Refer to Figs. 4.1 and 4.2.
Adjust VR602 and VR603 on the Logic & Power P.C.B. Ass'y to locate approximately at the middle of the variable range. Then turn ON the Power switch.
VR602 (for Cam position stop)
VR603 (for Cam position play)

(b) Press the Stop button to set the LX-5 in Stop mode. Adjust VR602 (for stop) so that the "S" mark on the Cam corresponds to the pointer on the mechanism chassis.

(c) Press the Play button to set the LX-5 in Playback mode.
(Cam will rotate, and the position marked with "PY" comes to the pointer.) Adjust VR603 (for play) so that the "PY" mark on the Cam corresponds to the pointer.

(d) Repeat above (b) and (c) 2 – 3 times so that the "S" and "PY" marks on the Cam correspond to the pointer accurately in Stop and Playback modes respectively.
(This adjustment is required because the position adjusted by one volume will be slightly changed when the other volume is adjusted.)

(e) Set the LX-5 in F.F. or Pause mode by pressing each button and check to insure that the pointer is in a range of "F" or "PS" mark respectively.

(f) If out of the range, precise adjustment for each position according to "(2) Offset Fine Adjustment of Control Motor Driver" will be required.

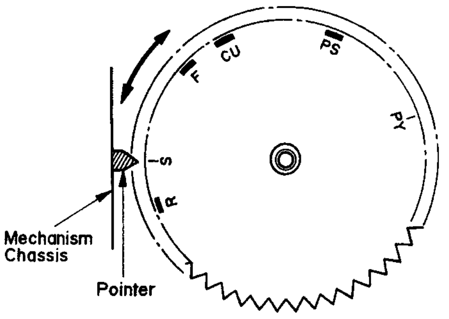


Fig. 4.1

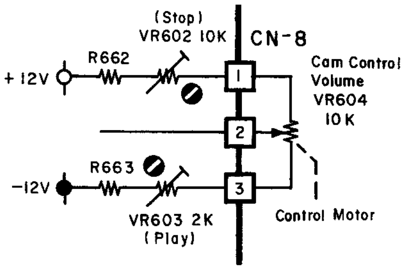


Fig. 4.2

(2) Offset Fine Adjustment of Control Motor Driver

Adjust only if a satisfactory result is not obtained in "(1) Offset Adjustment of Control Motor Driver". This adjustment is made by changing the value of the fixed resistors on the Logic & Power P.C.B. Ass'y.

Note: The value of voltage is typical value.

(a) Observation Point of Reference Voltage

Observe the each voltage at the sliding contact of the Cam Control Volume VR604 (10 kΩ) in Stop, Fast (F.F. or Rew.), Pause and Playback modes.

(b) Reference Voltage

Reference voltage at the sliding contact of VR604 (Cam Control Volume) in each mode is as follows:

Mode	Reference Voltage (Typical Value)	
Stop	0 V	2.0 V ±0.25 V
Fast (F.F./Rew.)	–2.0 V	
Pause	–6.5 V	2.6 V ±0.4 V
Play	–9.1 V	

(c) Resistors for Adjustment

Mode	Ref. No.	Typical Value
Fast (F.F./Rew.)	R647	22 kΩ
Pause	R649	76.8 kΩ (F)
Play	R648	10 kΩ

(d) Adjustment Procedures

1) Set the LX-5 in Stop mode, then check to insure that the voltage at the sliding contact of VR604 is 0 V (±0.3 V).
2) Set the LX-5 in F.F. mode, then adjust the value of R647 so that the voltage at the sliding contact of VR604 will become lower by 2.0 V (±0.25 V) than in Stop mode.
3) Press the Pause button to set the LX-5 in Pause mode. Adjust the value of R649 to obtain –6.5 V (+0.4, –0.15 V) at the sliding contact of VR604.
4) Set the LX-5 in Playback mode, then adjust the value of R648 so that the voltage at the sliding contact of VR604 will become lower by 2.6 V (±0.4 V) than in Pause mode.

4.2. Reel Motor Speed Adjustment in Play Mode

Refer to Fig. 4.3.

(1) Connect a DC voltmeter to TP1 and GND on the Logic & Power P.C.B. Ass'y.

(2) Without loading a cassette tape, set the LX-5 in Play mode.

(3) Adjust VR601 on the Logic & Power P.C.B. Ass'y to obtain –4 V on the DC voltmeter.

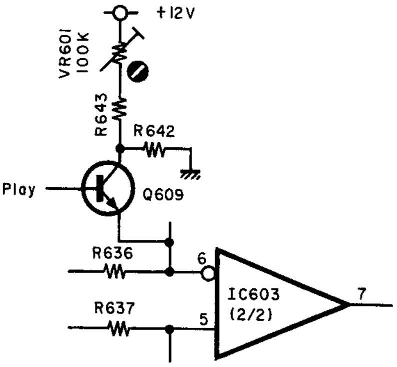


Fig. 4.3

4.3. Record Head and Playback Head Tilt Adjustment

Note: On items 4.3 – 4.9, refer to Fig. 4.4 flow chart.

Refer to Figs. 4.5 and 4.6.

(1) Load a Tilt Check Gauge M-9039 (DA09039A) in the LX-5.

(2) Clip the grounding terminal of the Tilt Check Gauge with one end of the cord with clip, and the chassis of the LX-5 with the other end.

(3) Remove both of the Height Gears.

(4) Set the LX-5 in Play mode. Check to insure whether the Beacons Playback Head "Upper" or "Lower" and Record Head "Upper" or "Lower" are illuminating. In order not to give damages onto the head surfaces, push both of slide knobs of the Gauge to the direction of arrow marks, then return them to the original place to be in contact with record head and playback head surfaces after Play mode is securely locked.

(5) Check to insure freedom from contact between the Gauge and pad lifter.

(6) Beacon Playback Head "Lower" will light on when height adjustment screw (P) turned clockwise but Playback Head "Upper" when counterclockwise. Adjust so that both "Upper" and "Lower" will light on even when you move the slide knob to the direction of an arrow mark and then return them to the original place.

(7) Same procedures will apply to the Beacons Record Head "Upper" and "Lower", except for the height adjustment screw (R).

(8) Set the LX-5 in Stop mode and fit both of the serrated Height Gears. Then set the LX-5 again in Play mode and insure all of the 4 Beacons are illuminating. If not, (3) through (7) will have to be repeated till satisfactory results are obtained.

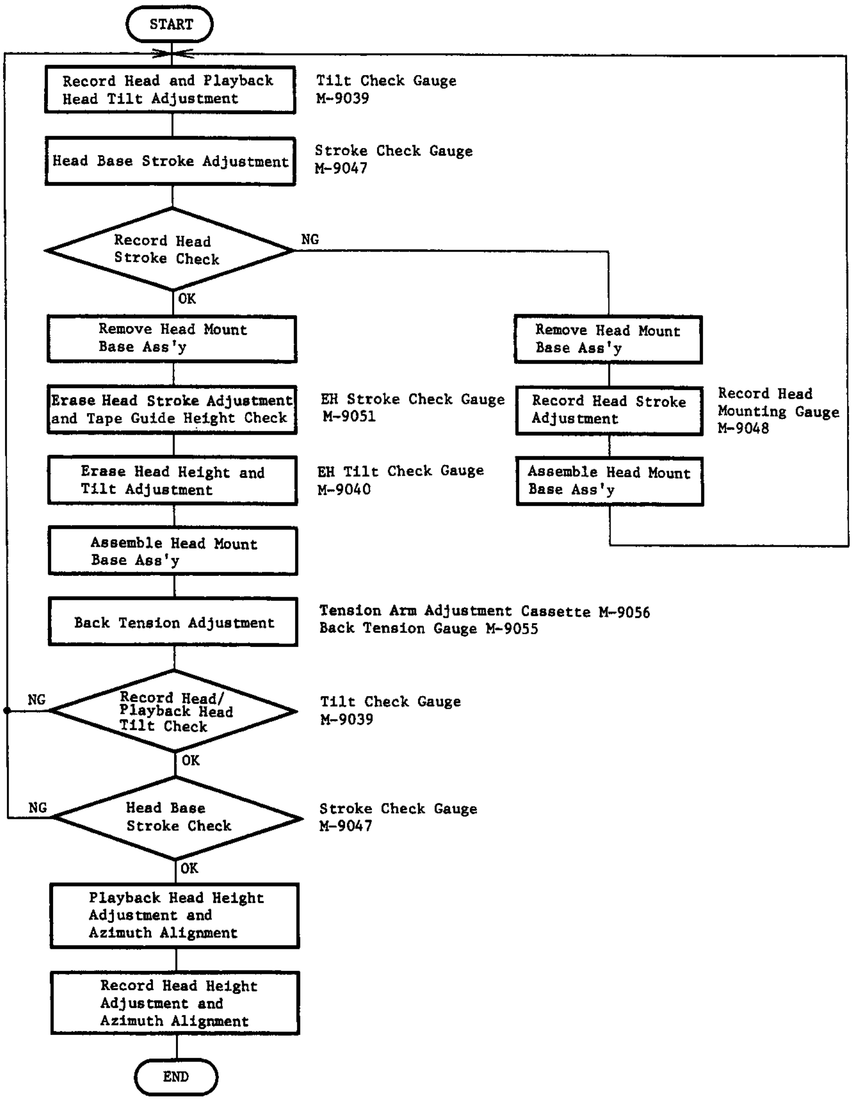

START
Record Head and Playback Head Tilt Adjustment
Tilt Check Gauge M-9039
Head Base Stroke Adjustment
Stroke Check Gauge M-9047
Record Head Stroke Check
NG
OK
Remove Head Mount Base Ass'y
Erase Head Stroke Adjustment and Tape Guide Height Check
EH Stroke Check Gauge M-9051
Erase Head Height and Tilt Adjustment
EH Tilt Check Gauge M-9040
Assemble Head Mount Base Ass'y
Back Tension Adjustment
Tension Arm Adjustment Cassette M-9056
Back Tension Gauge M-9055
Record Head/ Playback Head Tilt Check
NG
OK
Tilt Check Gauge M-9039
Head Base Stroke Check
NG
OK
Stroke Check Gauge M-9047
Playback Head Height Adjustment and Azimuth Alignment
Record Head Height Adjustment and Azimuth Alignment
END
Remove Head Mount Base Ass'y
Record Head Stroke Adjustment
Record Head Mounting Gauge M-9048
Assemble Head Mount Base Ass'y

Fig. 4.4

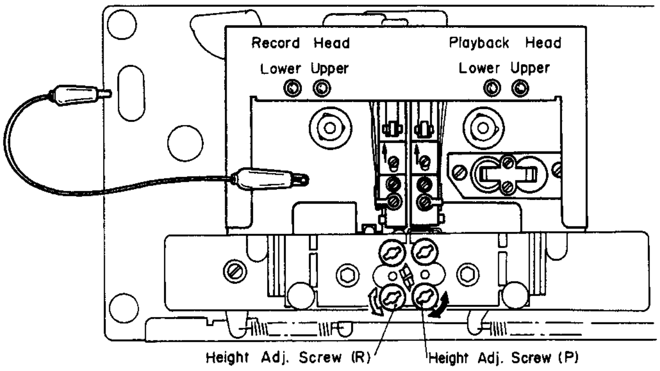

Record Head
Lower Upper
Playback Head
Lower Upper
Height Adj. Screw (R)
Height Adj. Screw (P)

Fig. 4.5

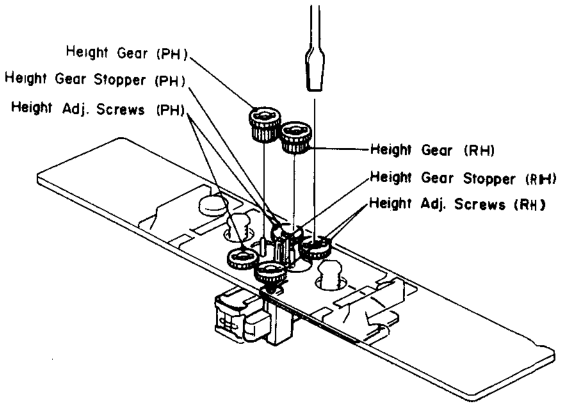

Height Gear (PH)
Height Gear Stopper (PH)
Height Adj. Screws (PH)
Height Gear (RH)
Height Gear Stopper (RH)
Height Adj. Screws (RH)

Fig. 4.6

4.4. Head Base Stroke Adjustment

Note: Before you conduct this adjustment, adjust with a "Tilt Check Gauge" to insure freedom from tilt on the playback head and record head.

Refer to Fig. 4.7.

(1) Load a Stroke Check Gauge M-9047 (DA09047B) in the LX-5.

(2) Move Record Head Indicator and Playback Head Indicator to the direction of arrow mark "A" with your finger tip and then set the LX-5 in Play mode. Then slowly release the Indicators and insure whether each of the Indicators is in contact with record and playback heads.

(3) Check to insure whether the "P" pointer on the Playback Head Indicator locates between the 2 lines on the Indicator Plate.

(4) If the playback head stroke is noted to be misaligned, adjustment can be made by moving the stroke adjuster assembled in the head base assembly (either forwardly or backwardly).

(5) Check to insure whether the "P" pointer on the Playback Head Indicator locates between the 2 lines on the Record Head Indicator, thus check can be made on record head stroke.

(6) If the record head stroke is noted to be misaligned, adjustment can be made with a Record Head Mounting Gauge M-9048 (DA09048A).

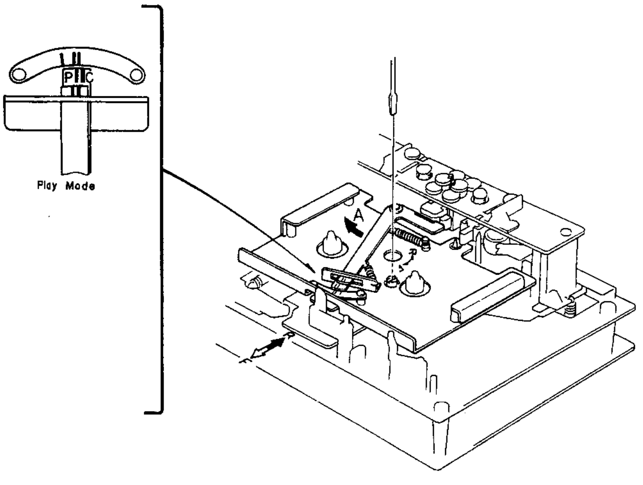


Fig. 4.7

4.5. Erase Head Stroke Adjustment and Tape Guide Height Check

Remove Head Mount Base Ass'y referring to item 2.21. Refer to Figs. 4.8 and 4.9.

(1) Erase Head Stroke Adjustment

(a) Load an EH Stroke Check Gauge M-9051 (DA0-9051A) in the LX-5.

(b) Set the LX-5 in Play mode, thus check can be made on erase head stroke through the EH Stroke Indicator.

(c) Check to insure whether the erase head surface is aligned with red line on the EH Stroke Indicator. If not, adjust the erase head stroke by loosening 2 screws A that assemble erase head and erase head plate.

(d) After completion of adjustment, 2 pcs. of screws shall be locked with lock tight paint.

(2) Supply Tape Guide Height Check

(a) Load an EH Stroke Check Gauge M-9051 (DA0-9051A) in the LX-5.

(b) Set the LX-5 in Play mode.

(c) Slide the Supply Tape Guide Check Bar down against the supply tape guide, and check to insure that the Supply Tape Guide Check Bar is accepted by the supply tape guide.

(3) Take-up Tape Guide Height Check

(a) Load an EH Stroke Check Gauge M-9051 (DA0-9051A) in the LX-5.

(b) Set the LX-5 in Play mode.

(c) Slide the Take-up Tape Guide Check Bar down against the take-up tape guide, and check to insure that the Take-up Tape Guide Check Bar is accepted by the take-up tape guide.

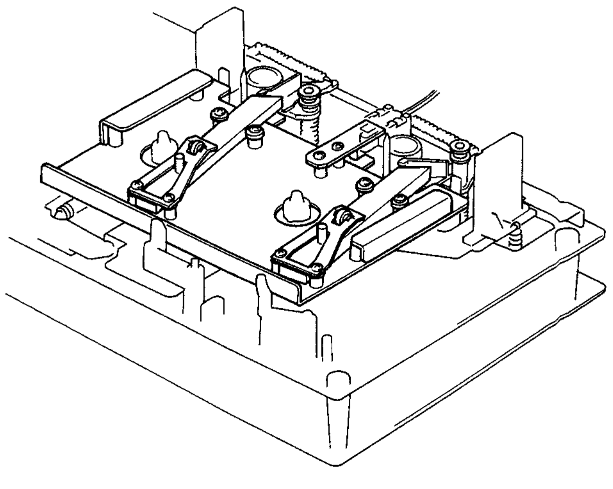


Fig. 4.8

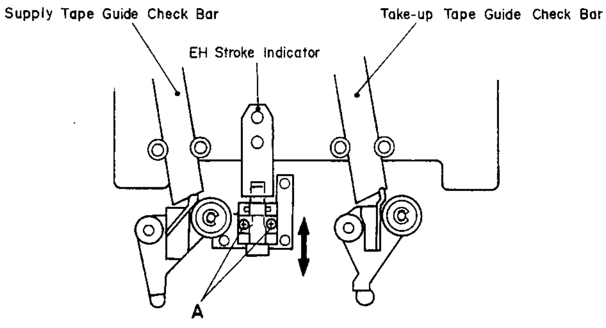


Fig. 4.9

4.6. Erase Head Height and Tilt Adjustment

Refer to Figs. 4.10 and 4.11.

(1) Remove Head Mount Base Ass'y referring to item 2.21.

(2) Load an EH Tilt Check Gauge M-9040 (DA09040A) in the LX-5.

(3) Set the LX-5 in Stop mode.

(4) Check to insure whether one of the 3 Beacons is illuminating. Look down the mirror as shown by an arrow mark and slowly turn the Screw "Height" counterclockwise (or clockwise) so that the two horizontal lines on the mirror will become superposed on the line (in different color) of the erase head, and check to insure whether Beacon "1" is illuminating.

(5) Turn Screw "Tilt" counterclockwise (or clockwise) to light on Beacon "2". Excessive turning will cause the Beacon "1" to light off. Adjustments of Screw "Tilt" will therefore be conducted till both of the Beacons "1" and "2" illuminate.

(6) Turn Screw "Azimuth" counterclockwise (or clockwise) to light on Beacon "3". Excessive turning will cause either Beacon "1" or "2" to light off, and therefore adjust Screw "Azimuth" until all of the 3 Beacons "1", "2" and "3" illuminate.

(7) Check to insure whether the horizontal line on the mirror corresponds to that on the erase head. If not, (4) through (7) will have to be repeated till satisfactory results are obtained.

(8) After completion of adjustment, 3 pcs. of screws shall be locked with lock tight paint.

Note: Before use of this gauge, check to insure freedom from dust or dirts, or overflow in the groove of the erase head surface.

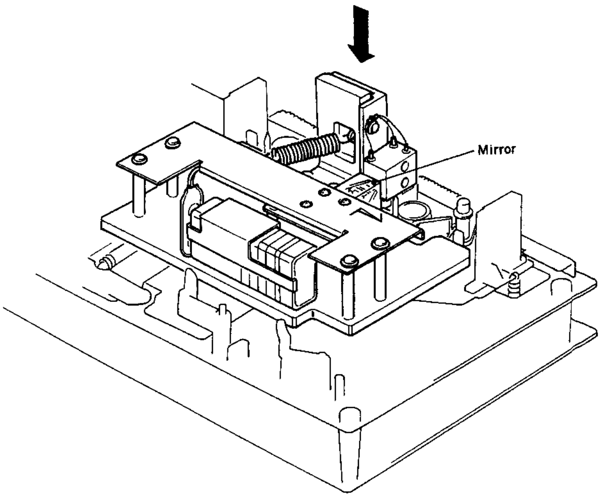


Fig. 4.10

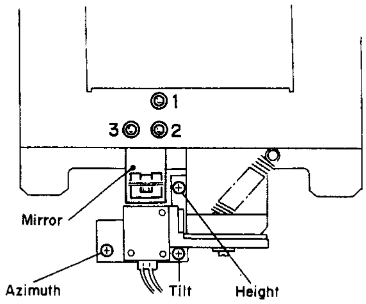


Fig. 4.11

4.7. Back Tension Adjustment

Refer to Figs. 4.12 – 4.14.

(1) Load a Tension Arm Adjustment Cassette (DA09056A) in the LX-5 referring to Fig. 4.12.

(2) Set the LX-5 in Play mode.

(3) Bend the Back Tension Arm with pliers so that the gap between the Cassette Holding Spring assembled on the Head Base Ass'y and the Back Tension Arm becomes 0.5 mm as shown in Fig. 4.13. Do not bend the top of the Back Tension Arm.

(4) Load the Back Tension Gauge (DA09055A) in the LX-5.

(5) Set the LX-5 in Play mode and read the torque value of Back Tension Gauge.
If the value is in a range of 6 g-cm to 10 g-cm, adjustment is not necessary. If not, change the installation point of the Back Tension Spring as shown in Fig. 4.14, and obtain the torque of 7 g-cm to 9 g-cm range.

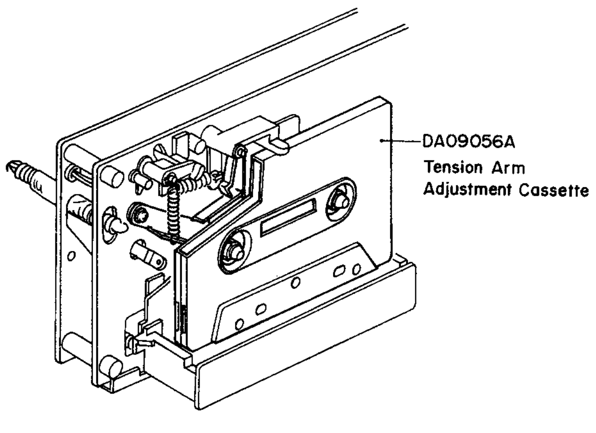


Fig. 4.12

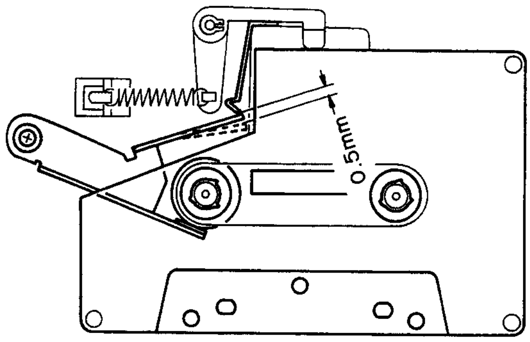


Fig. 4.13

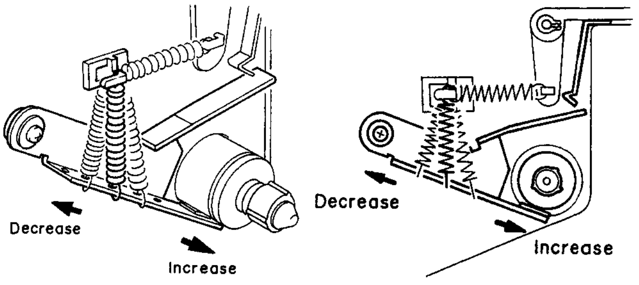


Fig. 4.14

4.8. Playback Head and Record Head Height Adjustment and Azimuth Alignment

(1) Playback Head Height Adjustment and Azimuth Alignment

Refer to Fig. 4.15.

(a) Connect a VTVM to the Output Jacks.

(b) Set the Monitor switch to Tape and Eq. switch to 70 µs.

(c) Load a 1 kHz Track Alignment Tape (DA09007A), then set the LX-5 in Play mode.

(d) Turn the PH Height Gear until the outputs of both channels become minimum.

(e) Load a 15 kHz Azimuth Tape (DA09004A), then set the LX-5 in Play mode.

(f) Turn the PH Azimuth Alignment Screw until the outputs of both channels become maximum.

(g) Repeat (c) through (f) one or two times to obtain optimum performance.

(2) Record Head Height Adjustment and Azimuth Alignment

Refer to Fig. 4.15.

(a) Connect a VTVM to the Output Jacks.

(b) Set the Bias Tune Volume to the center position.

(c) Set the Monitor switch to Tape, Eq. switch to 70 µs, and Tape Selector switch to SX.

(d) Load a Reference SX Tape (DA09025A), then set the LX-5 in Record and Play mode.

(e) Feed in 400 Hz (0 dB), then turn the RH Height Gear until the outputs of both channels become maximum.

(f) Feed in 15 kHz (–20 dB), then turn the RH Azimuth Alignment Screw until the outputs of both channels become maximum.

(g) Repeat (e) and (f) one or two times to obtain optimum performance.

(h) After completion of above adjustment, feed in 400 Hz (0 dB) and record it to the same portion of both sides A and B of the tape.

(i) Immerse the recorded tape in a magnetized developing solution. In turn, check to insure that the recording head tracks across the center are separated with a distance of 0.55 to 0.75 mm (typically 0.65 mm) as illustrated in Fig. 4.16.

Note: Liquid for tape magnetized development solution
"MAGNA-SEE, SOUND CRAFT a product of CBS RECORDS a division of Columbia Broadcasting System, Inc., Danbury, Conn. 06810 U.S.A., or equivalent".
After development, clean the tape otherwise pressure rollers and heads will become dirty.

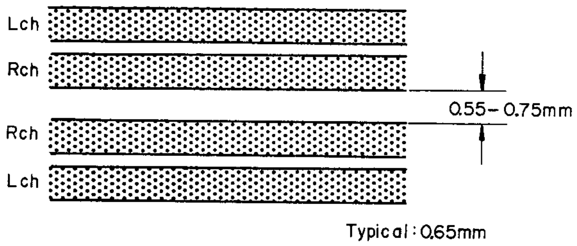

Lch
Rch
Rch
Lch
0.55–0.75mm
Typical: 0.65mm

Fig. 4.16

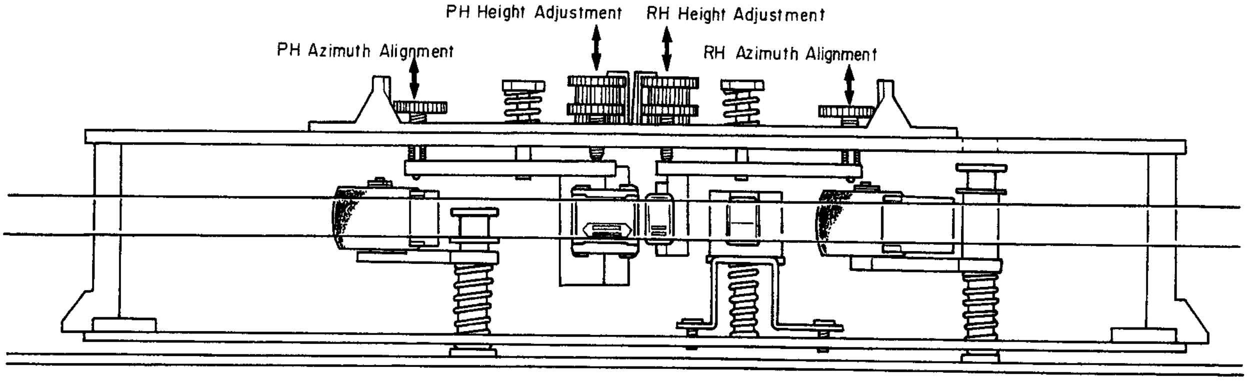

PH Height Adjustment
RH Height Adjustment
PH Azimuth Alignment
RH Azimuth Alignment

Fig. 4.15

4.9. Record Head Stroke Adjustment

Refer to Figs. 4.17 and 4.18.

Note: This adjustment will be required only to insure freedom from misalignment of the record head stroke in the record head stroke check mode.

(1) Check the accuracy of the record head stroke.

(2) Remove Head Mount Base Ass'y referring to item 2.21.

(3) Remove the record head assembly.

(4) Adjustment of Record Head Mounting Gauge M-9048 (DA09048A)

  (a) Mount the Block B onto the Mounting Gauge Plate.

  (b) Loosen the 2 screws fixing the Block A.

  (c) As shown in Fig. 4.17, hold the Gauges (3.05 mm and 0.1 mm thickness) between the Block A and Block B, and fix the Block A with screws, pushing the Block A to the 2 guide pins.

(5) Remove the Block B from the Mounting Gauge Plate.

(6) As shown in Fig. 4.18, mount the R-8L record head assembly onto the Mounting Gauge Plate, then check the location of the R-8L record head surface. (If record head contacts to the Block C, loosen 2 pcs. of screws that assemble record head and record head plate, then place the R-8L record head assembly onto the Plate.)

(7) Remove the R-8L record head assembly from the Mounting Gauge Plate.

(8) Readjustment of Record Head Mounting Gauge M-9048 (DA09048A)

  (a) Mount the Block B onto the Mounting Gauge Plate.

  (b) Loosen the 2 screws fixing the Block A.

  (c) As shown in Fig. 4.17, hold the Gauges (3.05 mm and either one of 0.05, 0.15, 0.2, 0.25, 0.3 or 0.35 mm thickness) between the Block A and Block B, and fix the Block A with screws, pushing the Block A to the 2 guide pins.

(9) Remove the Block B from the Mounting Gauge Plate.

(10) Mount the R-8L record head assembly onto the Mounting Gauge Plate.

(11) As shown in Fig. 4.18, loosen 2 pcs. of screws that assemble record head and record head plate.
As the location of the Block A is secured by the item (8)-(c), push the record head to the directions A and B, then tighten 2 pcs. of screws.

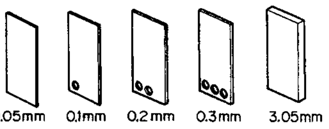
(12) Check to insure freedom from gap between the Block C and record head surface, then tighten the 2 pcs. of screws on the record head assembly with lock tight paint.

(13) Remove the R-8L record head assembly from the Mounting Guage Plate.

(14) Assemble the record head assembly to the head mount base assembly.

(15) Assemble the head mount base assembly to the mechanism assembly.

(16) Check the record head stroke.
If the above are inaccurate, items (1) through (16) will have to be repeated till satisfactory results are obtained.



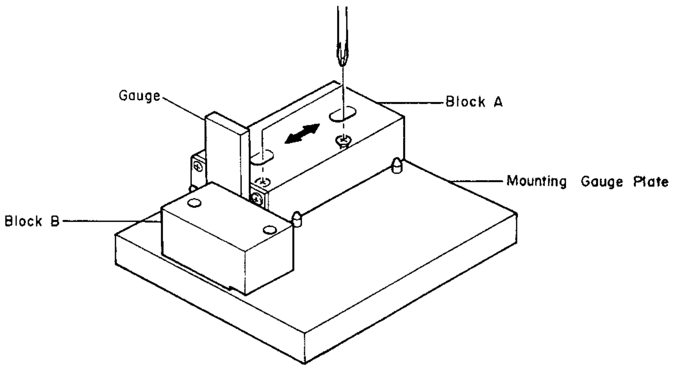


Fig. 4.17

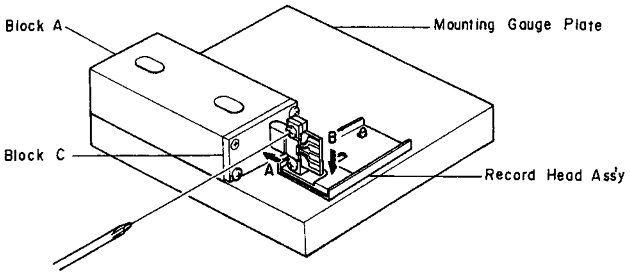


Fig. 4.18

4.10. Tape Travelling Adjustment

The adjustment shall be made with a modified version of the current type EXII C-90 as shown in Fig. 4.19 (error will be made if a current type Tape Travelling Cassette (DA09011A) should be used for this purpose).

While modifying an EXII C-90, the tape guides in the cassette housing shall be kept protected to avoid tilt. Check shall be made in the following procedures:

(1) An EXII C-90 tape thus modified shall be loaded onto the LX-5.

(2) Release the back-tension (rotate the Supply Reel and feed out some length of tape) and set the LX-5 in Play mode.

(3) In this juncture, check to insure whether the tape is free from waving or slippage from the tape guide.

(4) When the modified EXII C-90 is played back, check to insure whether the tape is freedom from waving from head surface or at pressure rollers.

(5) If either of waving or slippage from the tape guide should be noted, adjustments of "4.3. Record Head and Playback Head Tilt Adjustment", "4.4. Head Base Stroke Adjustment", "4.5. Erase Head Stroke Adjustment and Tape Guide Height Check", "4.6. Erase Head Height and Tilt Adjustment", "4.7. Back Tension Adjustment","4.8. Playback Head and Record Head Height Adjustment and Azimuth Alignment", "4.9. Record Head Stroke Adjustment", etc. will be required.

As a case may be, the said waving or slippage may have been caused from defective Supply Pressure Roller Ass'y or Take-up Pressure Roller Ass'y without parallel contact with capstans. If such are noted, the Pressure Roller Assemblies will have to be replaced.

Further, excessively weak take-up torque or strong take-up torque may cause defective tape travelling.

The LX-5 is intended to be an adjustment-free model, however if the similar matters as above should be noted, please replace the Reel Hub Ass'y to obtain appropriate take-up torque.

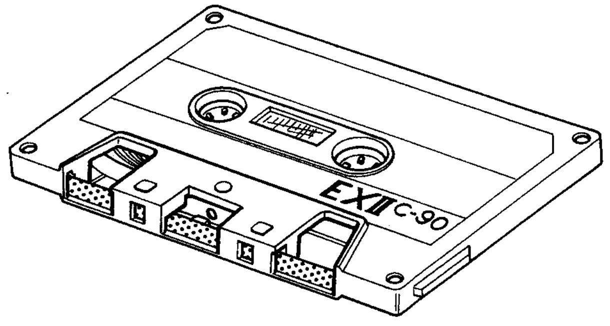


Fig. 4.19

4.11. Flywheel Holder Adjustment

(1) Refer to Fig. 4.20.
Tighten the Thrust Screws until the gap between the Flywheel Assemblies and Thrust Screws becomes minimized when both of the Capstan Shafts are moved backwardly and forwardly (the Thrust Springs between the Capstan Flanges and Flywheel Thrust Caps are in a flat state).
Excessive tightening of the Thrust Screws however will give damages on the Flywheel Assemblies, to which careful attention is invited.

(2) Return the Thrust Screws by 1/2 turn.

(3) Fixing the Thrust Screws with a screwdriver, lock the Lock Nut.

(4) Apply a quantity of lock tight paint to the Thrust Screws.

4.12. Tape Speed Adjustment

Refer to Fig. 4.21.

(1) Remove the Top Cover Ass'y referring to item 2.1.

(2) Connect a Frequency Counter to the Output Jack.

(3) Load a 3 kHz Speed Wow/Flutter Tape (DA09006A) and play it back.

(4) Adjust the Tape Speed Adjustment Volume (VR501) incorporated in the Capstan Motor to obtain 3,000 Hz on the Frequency counter.
CCW: Motor drives slowly.
CW: Motor drives fast.

4.13. Lubrication

LX-5 is a lubrication-free cassette deck except when parts are replaced. Apply the following lubricant for each replaced part:

(1) LAUNA #100
  Capstan Shaft
  Pressure Roller Shaft
  Thrust Cap

(2) FLOIL GB-TS-1
  Reel Hub Shaft
  Thrust portion on the Capstan Shaft
FLOIL GB-TS-1, made by Kanto Chemicals Co., Ltd. in Japan.
We suggest that you use the above or equivalent type. If unavailable please contact Kanto Chemicals Co., Ltd., 2-7 Kanda Suda-cho Chiyoda-ku, Tokyo 101 Japan.

(3) Silicon Oil #3000 CST
  Air Damper Piston
Note: Excessive lubrication may cause defective damper action as the 0.2^{ϕ} hole at the end of the cylinder may be filled with oil.

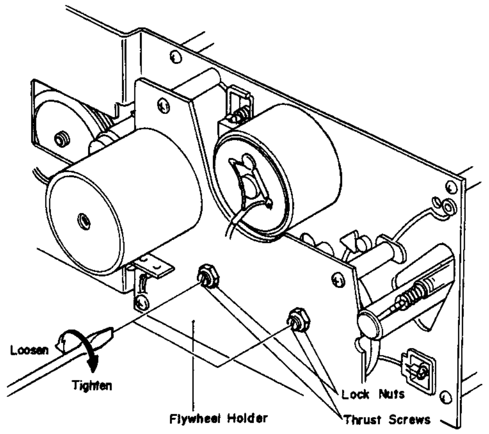


Fig. 4.20

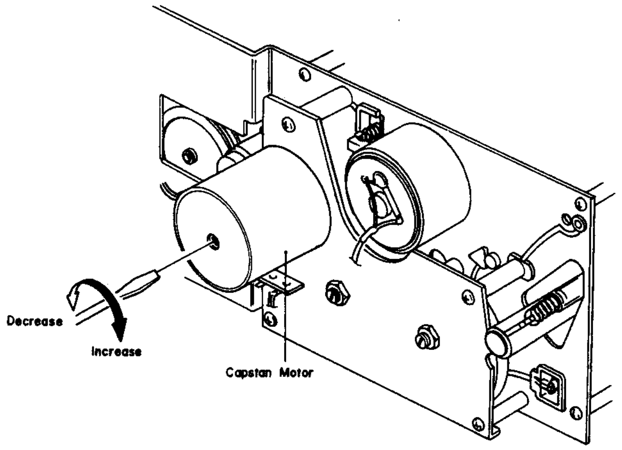
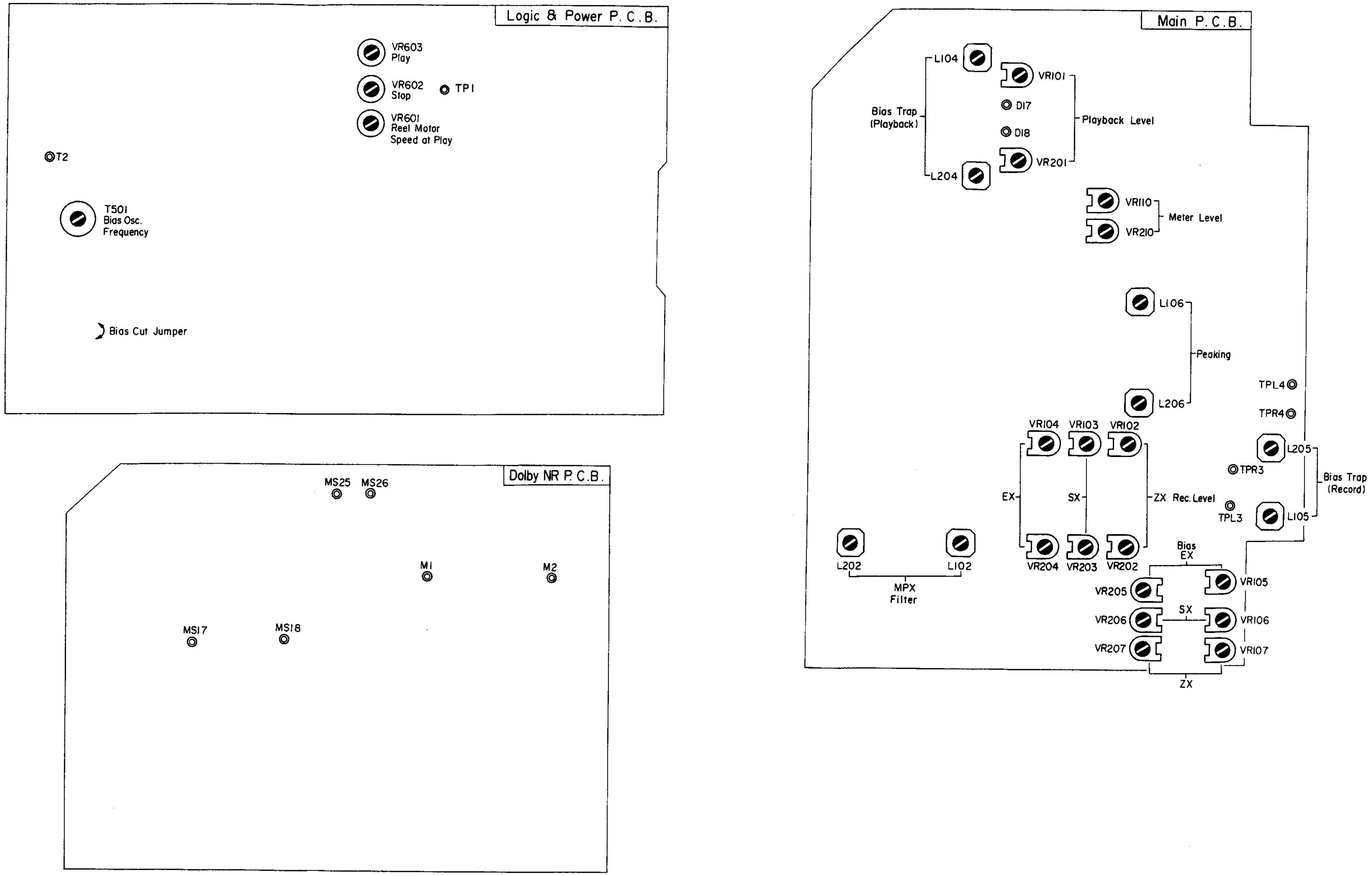


Fig. 4.21

5. PARTS LOCATION FOR ELECTRICAL ADJUSTMENT



Logic & Power P. C. B.
VR603
Play
VR602
Stop
TP1
VR601
Reel Motor
Speed at Play
T2
T501
Bias Osc.
Frequency
Bias Cut Jumper
Dolby NR P. C. B.
MS25
MS26
M1
M2
MS17
MS18
Main P. C. B.
L104
VR101
D17
D18
VR201
L204
Bias Trap
(Playback)
Playback Level
VR110
VR210
Meter Level
L106
Peaking
L206
TPL4
TPR4
VR104
VR103
VR102
L205
TPR3
Bias Trap
(Record)
EX
SX
ZX Rec. Level
TPL3
L105
L202
L102
MPX
Filter
VR204
VR203
VR202
Bias
EX
VR205
VR105
VR206
SX
VR106
VR207
VR107
ZX

Fig. 5

6. ELECTRICAL ADJUSTMENTS AND MEASUREMENTS

6.1. Adjustment and Measurement Instructions

Note: Electrical adjustment should be performed after mechanical adjustment is completed.

STEP	ITEM	SIGNAL SOURCE	OUTPUT CONNECTION	MODE	ADJUSTMENT	REMARKS
1	Tape Speed Adjustment	3 kHz Speed and Wow/Flutter Tape (DA09006A)	Frequency Counter to Output Jacks	Playback Monitor SW – Tape	Capstan Motor Governor P.C.B. VR501	Adjust VR501 to obtain 3 kHz ±0.5%. (VR501 is incorporated in the capstan motor.)
2	Meter Level Calibration	400 Hz to Input Jacks	VTVM to MS25, MS26 on Dolby NR P.C.B.	Monitor SW – Source	Main P.C.B. VR110, VR210	1. Feed in 400 Hz, then adjust the Input Level controls to obtain 90 mV –0.5 dB on the VTVM. 2. Adjust VR110 (VR210) so that the 0 dB segment of the level meter starts illuminating. 3. Adjust the Input Level controls to obtain 90 mV on the VTVM, then decrease the generator output level by 20 dB. 4. Check to insure that the segment for –20 dB illuminates.
3	MPX Filter Adjustment	19 kHz ±100 Hz to Input Jacks	VTVM to Output Jacks	Monitor SW – Source MPX SW – OFF/ON Dolby NR SW – OFF	Main P.C.B. L102, L202	1. Adjust Input Level controls to obtain 0 dB (1 V) on the VTVM. 2. Set the MPX Filter switch to IN, then adjust L105 (L205) to obtain the minimum reading on the VTVM (the minimum reading will be less than –30 dB).
4	Playback Head Track Alignment	1 kHz Track Alignment Tape (DA09007A)	VTVM to Output Jacks	Playback Monitor SW – Tape Tape SW – SX Eq. SW – 70 μs Dolby NR SW – OFF MPX SW – OFF	PH Height Gear	Adjust the PH Height Gear to obtain minimum readings of both channels on the VTVM. Refer to "Playback Head Height Adjustment and Azimuth Alignment" in item 4.8.
5	Playback Head Azimuth Alignment	15 kHz Azimuth Tape (DA09004A)	VTVM to Output Jacks	Same as above	Playback Head Azimuth Alignment Screw	Adjust the Playback Head Azimuth Alignment Screw to obtain the maximum readings of both channels on the VTVM. Refer to "Playback Head Height Adjustment and Azimuth Alignment" in item 4.8. Note: Repeat steps 4 and 5 one or two times to obtain optimum performance.
6	Playback Level Calibration	400 Hz Level Tape (DA09005A)	VTVM to MS25, MS26 on Dolby NR P.C.B.	Same as above	Main P.C.B. VR101, VR201	Adjust VR101 (VR201) to obtain 90 mV on the VTVM.
7	Playback Frequency Response	400 Hz Level Tape (DA09005A) 10 kHz PB Frequency Tape (DA09003A) 15 kHz PB Frequency Tape (DA09002A) 20 kHz PB Frequency Tape (DA09001A)	VTVM to Output Jacks	Same as above	Main P.C.B. R120, R220 R121, R221	1. Load a 400 Hz level tape and play it back. 2. Load 10 kHz, 15 kHz and 20 kHz PB frequency response tapes and adjust the playback head azimuth to obtain maximum levels on the VTVM with each tape. 3. Read the maximum levels with each tape and check to insure that the levels against the 400 Hz level tape are within the following ranges. If not, obtain satisfactory results by shorting R120 (R220) or R121 (R221). 10 kHz (–20 dB) –2 dB to +2 dB 15 kHz (–20 dB) –2 dB to +3 dB 20 kHz (–20 dB) –2 dB to +4 dB Check to insure that the difference in level between 10 kHz (–20 dB) and 20 kHz (–20 dB) is less than 2 dB. 4. Conduct step 5 "Playback Head Azimuth Alignment".

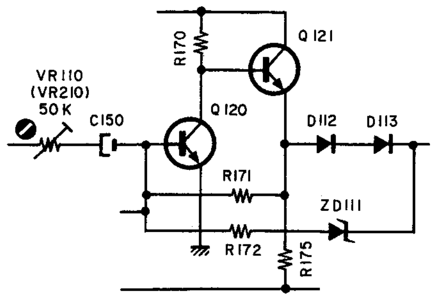


Fig. 6.1 2. Meter Level

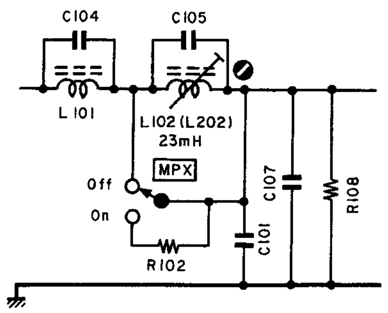


Fig. 6.2 3. MPX Filter

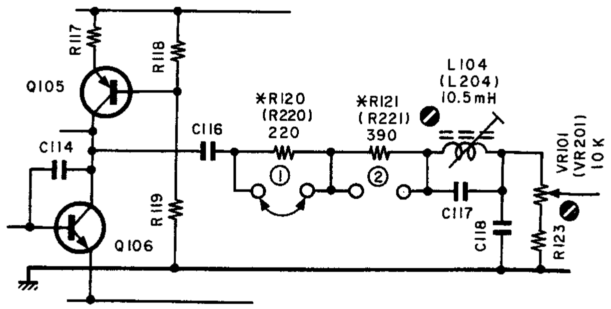


Fig. 6.3
6. Playback Level
7. Playback Frequency Response

STEP	ITEM	SIGNAL SOURCE	OUTPUT CONNECTION	MODE	ADJUSTMENT	REMARKS
8	Bias Oscillation Frequency and Erase Current Adjustment		VTVM across the additional 0.1 Ω resistor and Frequency Counter to T2 on Logic & Power P.C.B.	Record, Pause Monitor SW – Source Tape SW – ZX Eq. SW – 70 μs Dolby NR SW – OFF MPX SW – OFF	Logic & Power P.C.B. T501 R513, R514	1. Connect an additional 0.1 Ω resistor in series to the Erase Head, then connect a VTVM across it. 2. Set the Bias Tune Volume to center position. 3. Adjust T501 to obtain 105 kHz on the frequency counter. 4. Check the erase current by the VTVM. Erase current will be in a range of 310 mA to 400 mA (typically approx. 350 mA). If erase current is not sufficient, increase it by shorting R513 or R514. 5. After completion of the erase current adjustment, re-check the bias oscillation frequency. 6. Remove the additional 0.1 Ω resistor.
9	Record Amplifier Equalizer Adjustment	23 kHz (–20 dB) to Input Jacks	VTVM to TPL4, TPR4 on Main P.C.B.	Same as above	Main P.C.B. L106, L206	1. Remove the bias-cut-jumper from the dip side of the Logic & Power P.C.B. Ass'y. 2. Adjust L106 (L206) to obtain peak reading at 23 kHz on the VTVM. 3. Re-solder the bias-cut-jumper.
10	Bias Trap Adjustment (Record Amp.)	Remove input signals	VTVM to TPL3, TPR3 on Main P.C.B.	Same as above	Main P.C.B. L105, L205	1. Set the Bias Tune Volume to center position. 2. Adjust L105 (L205) to obtain the maximum reading on the VTVM.
11	Bias Trap Adjustment (Playback Amp.)	Remove input signals	VTVM to D17, D18 on Main P.C.B.	Record, Playback Monitor SW – Tape Tape SW – ZX Eq. SW – 70 μs Dolby NR SW – OFF MPX SW – OFF	Main P.C.B. L104, L204	1. Set the Bias Tune Volume to center position. 2. Adjust L104 (L204) to obtain the minimum reading on the VTVM.
12	Record Head Height Adjustment	400 Hz (0 dB) to Input Jacks	VTVM to Output Jacks	Record, Playback Monitor SW – Tape Tape SW – SX Eq. SW – 70 μs Dolby NR SW – OFF MPX SW – OFF	RH Height Gear	1. Set the Bias Tune Volume to center position. 2. Adjust the RH Height Gear to obtain maximum readings of both channels on the VTVM. Refer to "Record Head Height Adjustment and Azimuth Alignment" in item 4.8.
13	Record Head Azimuth Alignment	15 kHz (–20 dB) to Input Jacks	VTVM to Output Jacks	Same as above	Record Head Azimuth Alignment Screw	1. Set the Bias Tune Volume to center position. 2. Adjust the Record Head Azimuth Alignment Screw to obtain maximum readings of both channels on the VTVM. Refer to "Record Head Height Adjustment and Azimuth Alignment" in item 4.8. Note: Repeat steps 12 and 13 one or two times to obtain optimum performance.

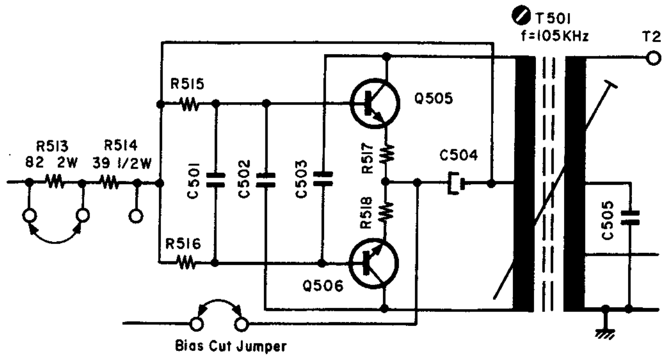

T501
f=105KHz
T2
R515
Q505
R513
82 2W
R514
39 1/2W
C501
C502
C503
R517
C504
R518
R516
Q506
C505
Bias Cut Jumper

Fig. 6.4
8. Bias Oscillation Frequency and Erase Current

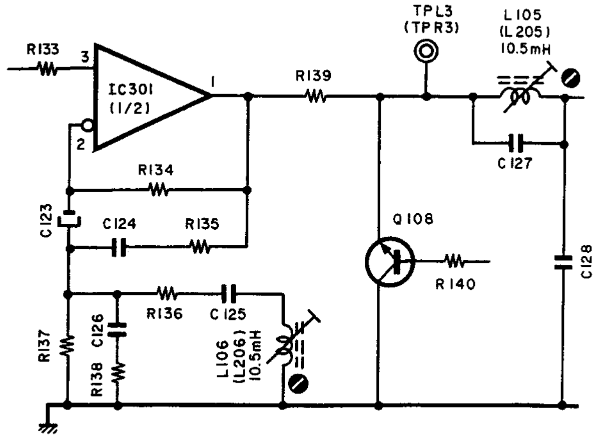

TPL3
(TPR3)
L105
(L205)
10.5mH
R133
3
IC301
(1/2)
1
2
R139
C127
R134
C123
C124
R135
Q108
R140
C128
R136
C125
R137
C126
R138
L106
(L206)
10.5mH

Fig. 6.5
9. Record Amp. Equalizer
10. Bias Trap (Record Amp.)
15. Overall Frequency Response

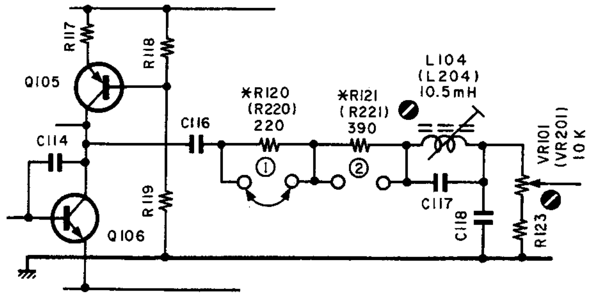

R117
R118
Q105
C114
C116
*R120
(R220)
220
*R121
(R221)
390
L104
(L204)
10.5mH
①
②
C117
C118
VR101
(VR201)
10K
R123
R119
Q106

Fig. 6.6
11. Bias Trap (Playback Amp.)

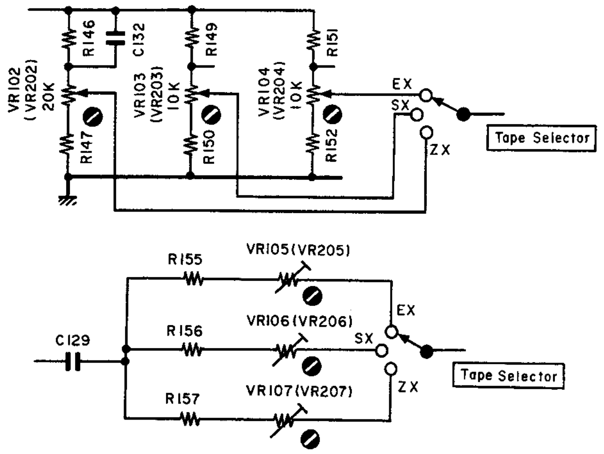

R146
C132
R149
R151
VR102
(VR202)
20K
VR103
(VR203)
10K
VR104
(VR204)
10K
R147
R150
R152
EX
SX
ZX
Tape Selector
R155
VR105(VR205)
C129
R156
VR106(VR206)
R157
VR107(VR207)
EX
SX
ZX
Tape Selector

Fig. 6.7
14. Record Level and Recording Bias Current

STEP	ITEM	SIGNAL SOURCE	OUTPUT CONNECTION	MODE	ADJUSTMENT	REMARKS
14	Record Level Calibration and Recording Bias Current Adjustment	400 Hz (0 dB), 10 kHz and 20 kHz (–20 dB) to Input Jacks	VTVM and Distortion Meter to Output Jacks	Record, Playback Monitor SW – Source/Tape Tape SW – ZX/SX/EX Eq. SW – 70 µs (ZX/SX) 120 µs (EX) Dolby NR SW – ON (C-Type/ B-Type)/OFF MPX SW – OFF	Main P.C.B. (Record Level) ZX: VR102, VR202 SX: VR103, VR203 EX: VR104, VR204 (Bias Current) ZX: VR107, VR207 SX: VR106, VR206 EX: VR105, VR205	Adjustment should be made in the order of ZX, SX and EX. 1. Set the Bias Tune Volume to center position. 2. Set the Monitor switch to Source and Dolby NR switch to C-Type. 3. Feed in 400 Hz, then set the Input Level controls to obtain 0 dB (1 V) on the VTVM. 4. Set the Monitor switch to Tape. 5. Load a reference ZX tape (DA09037A), reference SX tape (DA09025A) and reference EXII tape (DA09066A). 6. Adjust Record Cal. VR102 (VR202) for ZX, VR103 (VR203) for SX and VR104 (VR204) for EX to center position. 7. Feed in 400 Hz (0 dB), then record and play it back. Adjust Bias VR107 (VR207) for ZX, VR106 (VR206) for SX and VR105 (VR205) for EX to obtain the maximum readings on the VTVM. 8. Feed in 20 kHz (–20 dB), then adjust Bias VR107 (VR207) for ZX, VR106 (VR206) for SX and VR105 (VR205) for EX to obtain the same readings as source monitor levels on the VTVM. 9. Feed in 400 Hz (0 dB), then adjust Record Cal. VR102 (VR202) for ZX, VR103 (VR203) for SX and VR104 (VR204) for EX to obtain 0 dB on the VTVM. 10. Repeat above 8 and 9 two or three times to obtain optimum performance. 11. Set the Dolby NR switch to OFF. 12. Feed in 10 kHz (–20 dB) and 20 kHz (–20 dB), then record and play them back. Check to insure that the levels are within –20 dB ±3 dB against the levels in Dolby NR C-Type. 13. Set the Dolby NR switch to B-Type. 14. Feed in 10 kHz (–20 dB) and 20 kHz (–20 dB), then record and play them back. Check to insure that the levels are within –20 dB ±2 dB against the levels in Dolby NR OFF. 15. Check to insure whether the total harmonic distortion is less than 0.9% for ZX tape and 1.0% for SX and EXII tapes. 16. If above is not sufficient, repeat 7 to 15 till satisfactory results are obtained.
15	Overall Frequency Response Adjustment	400 Hz (0 dB) and 20 Hz to 20 kHz (–20 dB) to Input Jacks	VTVM to Output Jacks	Record, Playback Monitor SW – Source/Tape Tape SW – ZX/SX/EX Eq. SW – 70 µs (ZX/SX) 120 µs (EX) Dolby NR SW – OFF MPX SW – OFF	Main P.C.B. L106, L206	1. Set the Bias Tune Volume to center position. 2. Set the Monitor switch to Source. 3. Feed in 400 Hz (0 dB) and adjust Input Level controls to obtain 0 dB on the VTVM. 4. Decrease the generator output level by 20 dB. 5. Set the Monitor switch to Tape, then record and play it back. 6. Feed in 20 Hz to 20 kHz (–20 dB), and check to insure whether the output levels are within –20 dB ±4 dB. 7. If above is not sufficient, adjust L106 (L206) to obtain approx. –20 dB on the VTVM at 20 kHz. Then, conduct step 14 "Record Level Calibration and Recording Bias Current Adjustment" 8. If above is not sufficient, precise re-adjustment of step 7 "Playback Frequency Response", replacement of Playback Head or Record Head, or check on item 4.10 "Tape Travelling Adjustment" will be required.
16	Crosstalk Measurement	1 kHz to Input Jacks	1 kHz Band Pass Filter and VTVM to Output Jacks	Record and Playback Monitor SW – Tape Tape SW – ZX Eq. SW – 70 µs Dolby NR SW – OFF MPX SW – OFF		1. Set the Bias Tune Volume to center position. 2. Erase the tape with bulk eraser. 3. Adjust the Input Level controls to obtain 0 dB on the VTVM, and record the signals on the reference ZX tape (DA09037A). 4. Turn the cassette tape the other way round and play it back. 5. Measure the difference between 3 and 4.
17	Channel Separation Measurement	1 kHz to Input Jacks	Same as above	Same as above		1. Set the Bias Tune Volume to center position. 2. Erase the tape with bulk eraser. 3. Adjust L ch (R ch) Input Level control to obtain 0 dB on the VTVM, and close R ch (L ch) Input Level control. 4. Record and play it back, then measure the R ch (L ch) level.
18	Erasure Measurement	100 Hz to Input Jacks	100 Hz Band Pass Filter and VTVM to Output Jacks	Record and Playback Monitor SW – Tape Tape SW – ZX Eq. SW – 70 µs Dolby NR SW – OFF MPX SW – OFF		1. Set the Bias Tune Volume to center position. 2. Erase the tape with bulk eraser. 3. Adjust Input Level controls to obtain 0 dB on the VTVM, and record the signals on the reference ZX tape (DA09037A). 4. Rewind the tape, close Input Level controls, and then record again. 5. Rewind the tape, play it back, and then measure the difference between 3 and 4.

STEP	ITEM	SIGNAL SOURCE	OUTPUT CONNECTION	MODE	ADJUSTMENT	REMARKS
19	Signal to Noise Ratio Measurement	400 Hz to Input Jacks	IHF-A Curve Filter, Distortion Meter and VTVM to Output Jacks	Record and Playback Monitor SW – Tape Tape SW – ZX Eq. SW – 70 μs Dolby NR SW – ON (B-Type/ C-Type) MPX SW – OFF		1. Set the Bias Tune Volume to center position. 2. Set the Dolby NR switch to B-Type/C-Type. 3. Feed in 400 Hz, then record and play it back. 4. Adjust the Input Level controls to obtain 3% total harmonic distortion in Playback mode. 5. Close the Input Level controls then record. 6. After rewound, play back and check the output level difference between 4 and 5. Note: The filter of IHF-A curve shall be used in the measurements.
20	Total Harmonic Distortion Measurement	400 Hz to Input Jacks	VTVM and Distortion Meter to Output Jacks	Record and Playback Monitor SW – Tape Tape SW – ZX/SX/EX Eq. SW – 70 μs (ZX/SX) 120 μs (EX) Dolby NR SW – OFF MPX SW – OFF		1. Set the Bias Tune Volume to center position. 2. Adjust the Input Level controls to obtain 0 dB on the VTVM. 3. Record and play it back. 4. Read the distortion meter and check to insure that the distortion is as follows: EXII . . . . 1.0% or less SX . . . . 1.0% or less ZX . . . . 0.9% or less
21	Wow/Flutter Measurement	3 kHz Speed and Wow/Flutter Tape (DA09006A)	Wow/Flutter Meter to Output Jacks	Playback Monitor SW – Tape Eq. SW – 70 μs		Play back and read the wow/flutter meter.

6.2. Playback Frequency Response Adjustment

Fig. 6.8 shows a playback equalization curve and Fig. 6.9 is the playback amp. circuit for adjustment.

(1) Peaking Adjustment (for high frequency response)

This adjustment will be required if playback level is not sufficient when 20 kHz PB frequency response tape is played back as referred to step 7 in 6.1 "Adjustment and Measurement Instructions".

Peaking portion compensates the gap loss of the playback head. Peaking level is varied by the short circuit of R120 (R220) or R121 (R221) as illustrated in Fig. 6.8.

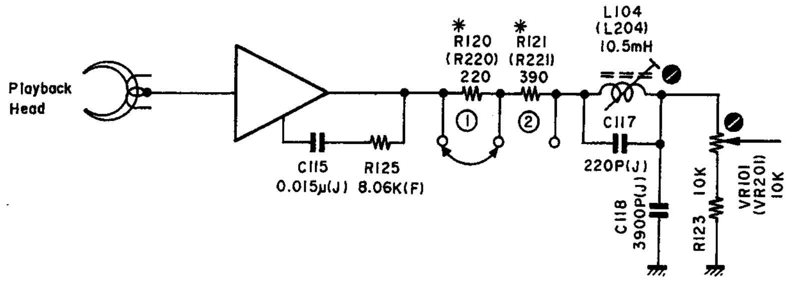


Fig. 6.9 Playback Eq. Amp.

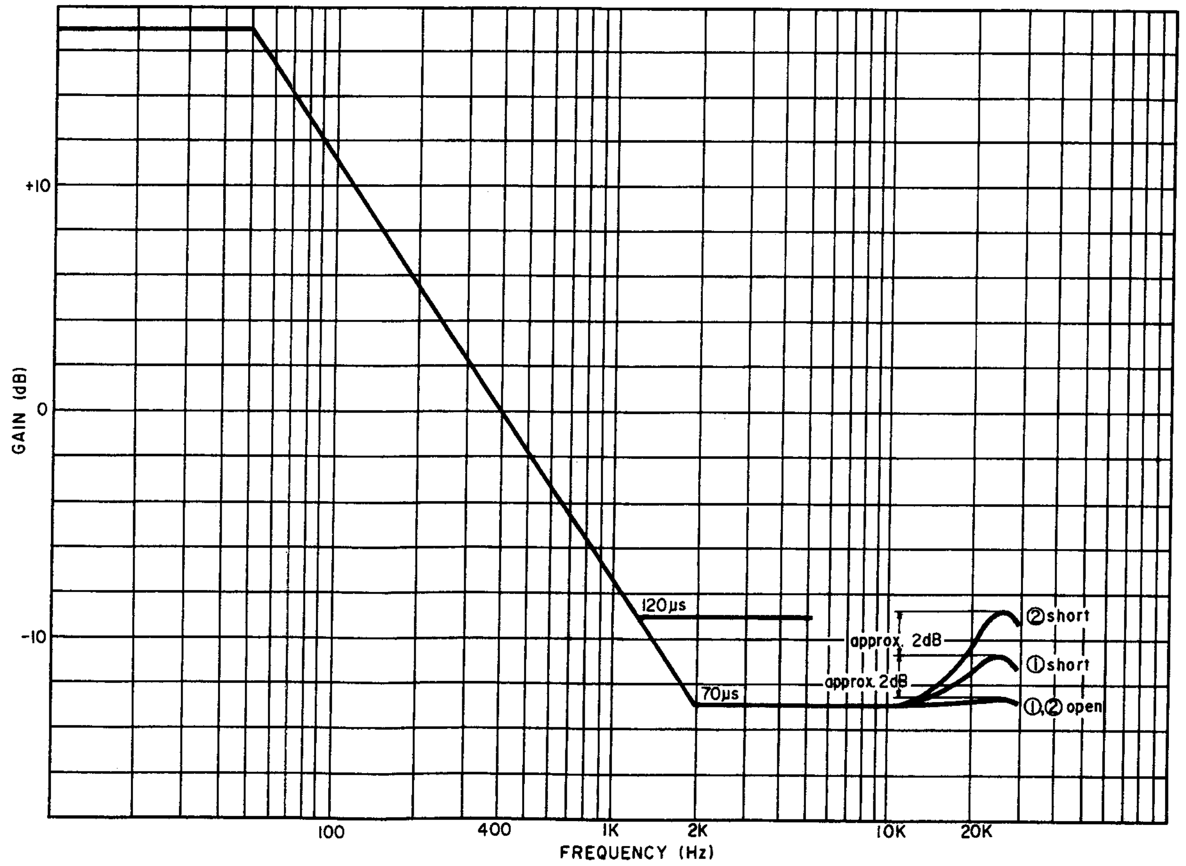


Fig. 6.8 Playback Equalization Curve

6.3. Dolby NR Circuit Check

Dolby NR circuit incorporates Dolby NR ICs which have no adjustment point.

Perform the following checks and make sure that the IC operates accurately, i.e., accuracy of frequency response through IC.

6.3.1. Dolby NR B-Type Circuit Check

(1) Playback Dolby NR Circuit

Signal Source: 1.4 kHz to pin No. M17 (M18) on the Dolby NR P.C.B.
Output Connection: VTVM to MS25 (MS26) on the Dolby NR P.C.B.
Mode: Stop
Monitor SW – Tape
Dolby NR SW – B-Type/OFF

(a) Connect a VTVM to MS25 (MS26) on the Dolby NR P.C.B. Ass'y.

(b) Set the Dolby NR switch to B-Type.
Feed in 1.4 kHz to pin No. M17 (M18) and adjust the generator output control to obtain 9 mV on the VTVM.

(c) Set the Dolby NR switch to OFF.
Check to insure that the reading is +3.2 dB ±1.5 dB on the VTVM.

(2) Record Dolby NR Circuit

Signal Source: 1.4 kHz to Input Jacks
Output Connection: VTVM to MS25 (MS26) and M1 (M2) on the Dolby NR P.C.B.
Mode: Stop
Monitor SW – Source
Dolby NR SW – B-Type/OFF

(a) Connect a VTVM to MS25 (MS26) on the Dolby NR P.C.B. Ass'y.

(b) Feed in 1.4 kHz and adjust the Input Level controls to obtain 9 mV/2.85 mV on the VTVM.

(c) Remove the VTVM from MS25 (MS26) and reconnect it to M1 (M2) on the Dolby NR P.C.B. Ass'y.

(d) Check to insure that the reading at M1 (M2) corresponds to the following with Dolby NR switch OFF and B-Type.

Input Level at MS25, MS26	Level at M1 (IC102-16), M2 (IC202-16)	
	Dolby NR OFF	Dolby NR B-Type
9 mV	0 dB	+3.2 dB ±1.5 dB
2.85 mV	0 dB	+8.2 dB ±1.5 dB

6.3.2. Dolby NR C-Type Circuit Check

(1) Playback Dolby NR Circuit

Signal Source: 1.4 kHz to pin No. M17 (M18) on the Dolby NR P.C.B.
Output Connection: VTVM to MS25 (MS26) on the Dolby NR P.C.B.
Mode: Stop
Monitor SW – Tape
Dolby NR SW – C-Type/OFF

(a) Connect a VTVM to MS25 (MS26) on the Dolby NR P.C.B. Ass'y.

(b) Set the Dolby NR switch to C-Type.
Feed in 1.4 kHz to pin No. M17 (M18) and adjust the generator output control to obtain 9 mV on the VTVM.

(c) Set the Dolby NR switch to OFF.
Check to insure that the reading is +6.5 dB ±1.5 dB on the VTVM.

(2) Record Dolby NR Circuit

Signal Source: 1.4 kHz to Input Jacks
Output Connection: VTVM to MS25 (MS26) and M1 (M2) on the Dolby NR P.C.B.
Mode: Stop
Monitor SW – Source
Dolby NR SW – C-Type/OFF

(a) Connect a VTVM to MS25 (MS26) on the Dolby NR P.C.B. Ass'y.

(b) Feed in 1.4 kHz and adjust the Input Level controls to obtain 9 mV/2.85 mV on the VTVM.

(c) Remove the VTVM from MS25 (MS26) and reconnect it to M1 (M2) on the Dolby NR P.C.B. Ass'y.

(d) Check to insure that the reading at M1 (M2) corresponds to the following with Dolby NR switch OFF and C-Type.

Input Level at MS25, MS26	Level at M1 (IC102-16), M2 (IC202-16)	
	Dolby NR OFF	Dolby NR C-Type
9 mV	0 dB	+6.5 dB ±1.5 dB
2.85 mV	0 dB	+11.4 dB ±1.5 dB

7. MOUNTING DIAGRAMS AND PARTS LIST

Schematic Ref. No.	Part No.	Description
	BA04626A	**Power Switch P.C.B. Ass'y (Japan)**
	BA04627A	**Power Switch P.C.B. Ass'y (U.S.A. & Canada)**
	BA04628A	**Power Switch P.C.B. Ass'y (UK, Australia, 220V Class 2 & Others)**
	0B02519B	Power Switch P.C.B.
SW1	0B07406A	Power Switch (Japan)
SW1	0B07407A	Power Switch (U.S.A. & Canada)
SW1	0B07408A	Power Switch S.V.B. (UK, Australia, 220V Class 2 & Others)
M2	0B08363A	Spark Killer (Japan)
M2	0B08342A	Spark Killer (U.S.A. & Canada)
M2	0B08955A	Spark Killer (UK, Australia, 220V Class 2 & Others)
	0E00622A	Screw M3x5 Philips Pan Head (2A) (2 pcs.)
	0E00752A	Eyelet 2x3 (2 pcs.)
	0J04536A	Power Switch Holder (1 pce.)
	BA04637A	**Shut-off P.C.B. Ass'y**
	0B07839B	Shut-off P.C.B.
Q405	0B06228A	Photo Transistor PH104
R604	0B05615A	Carbon Resistor 22K ERD-25T J
R605	0B09215A	Fail Safe Type Resistor 100 RDF-25S J
PL407	0B08552A	Lamp 12V 25mA
CN13	0B08947A	9P Connector
	0M04230A	Label CN-13 (1 pce.)
	BA04593A	**LED P.C.B. Ass'y** Serial No.: A12302901 –
	0B07994C	LED P.C.B.
LED301 302,303	0B06340A	LED Red TLR208
LED304 305	0B06327A	LED
R301,302	0B01857A	Carbon Resistor 1K ERD-25T J
CN24	0B08967A	9P-H Connector 450mm
	0E00857A	BT Screw M3x6 Philips Binding Head (1 pce.)
	0J04534A	Fader House (1 pce.)
	0M04236A	Label CN-24 (1 pce.)
	BA04593A	**LED P.C.B. Ass'y** Serial Nos.: A12301001 – A12302900
	0B07994A	LED P.C.B.
LED301 302,303	0B06340A	LED Red TLR208
LED304 305	0B06327A	LED
R301,302	0B01857A	Carbon Resistor 1K ERD-25T J
CN24	0B08967A	9P-H Connector 450mm
	0E00857A	BT Screw M3x6 Philips Binding Head (1 pce.)
	0J04534A	Fader House (1 pce.)
	0M04236A	Label CN-24 (1 pce.)

Schematic Ref. No.	Part No.	Description
	BA04592A	**Control Switch P.C.B. Ass'y** Serial No.: A12302901 –
	0B07993C	Control Switch P.C.B.
LED301	0B06340A	LED Red TLR208
LED302-306	0B06341A	LED Green TLG208 (5 pcs.)
R301,302 303,305 306	0B05575A	Carbon Resistor 560 ERD-25T J
R304	0B01857A	Carbon Resistor 1K ERD-25T J
R307	0B05676A	Carbon Resistor 390K ERD-25T J
SW301-308	0B07219A	Switch AKC8S
SW309,310	0B07396A	Double Action Switch KHF10901
CN15	0B08928A	6P-H Connector 450mm
CN17	0B08929A	9P-H Connector 450mm
CN23	0B08931A	10P-H Connector 400mm
	0M04222A	Label CN-15 (1 pce.)
	0M04224A	Label CN-17 (1 pce.)
	0M04332A	Label CN-23 (1 pce.)
	BA04592A	**Control Switch P.C.B. Ass'y** Serial Nos.: A12301001 – A12302900
	0B07993A	Control Switch P.C.B.
LED301	0B06340A	LED Red TLR208
LED302-306	0B06341A	LED Green TLG208 (5 pcs.)
R301,302 303,305 306	0B05575A	Carbon Resistor 560 ERD-25T J
R304	0B01857A	Carbon Resistor 1K ERD-25T J
R307	0B05676A	Carbon Resistor 390K ERD-25T J
SW301-308	0B07219A	Switch AKC8S
SW309,310	0B07396A	Double Action Switch KHF10901
CN15	0B08928A	6P-H Connector 450mm
CN17	0B08929A	9P-H Connector 450mm
CN23	0B08931A	10P-H Connector 400mm
	0M04222A	Label CN-15 (1 pce.)
	0M04224A	Label CN-17 (1 pce.)
	0M04332A	Label CN-23 (1 pce.)

Note: Mounting diagram shows a dip side view of the printed circuit board.

7.1. Power Switch P.C.B. Ass'y

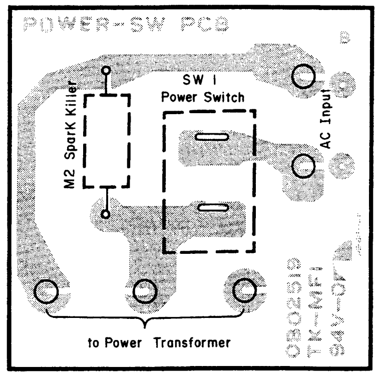

POWER-SW PCB
SW 1
Power Switch
M2 Spark Killer
AC Input
to Power Transformer
0B02519
TK-MFI
94V-0

Fig. 7.1

7.2. Shut-off P.C.B. Ass'y

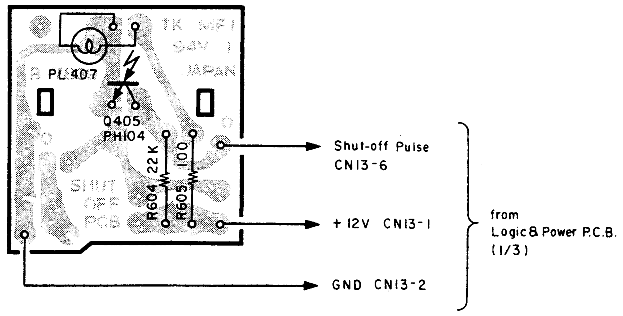

PL407
Q405
PH104
22K
100
R604
R605
SHUT OFF PCB
TK MFI 94V JAPAN
Shut-off Pulse CN13-6
+12V CN13-1
GND CN13-2
from Logic & Power P.C.B. (1/3)

Fig. 7.2

7.4. Control Switch P.C.B. Ass'y

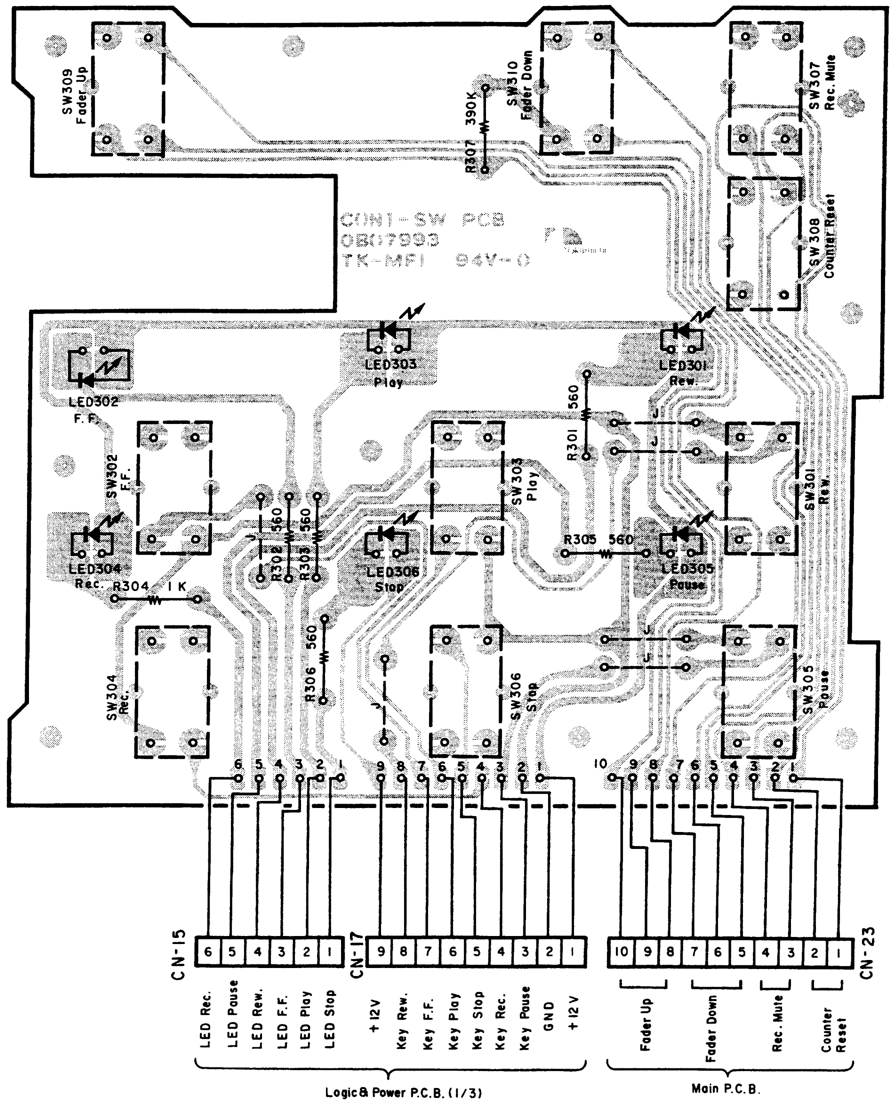

SW309 Fader Up
SW310 Fader Down
SW307 Rec. Mute
SW308 Counter Reset
R307 390K
CONT-SW PCB
0B07993
TK-MFI 94V-0
LED302 F.F.
LED303 Play
LED301 Rew.
SW302 F.F.
SW303 Play
SW301 Rew.
R301 560
R302 560
R303 560
R305 560
LED304 Rec.
R304 1K
LED306 Stop
LED305 Pause
SW304 Rec.
R306 560
SW306 Stop
SW305 Pause
CN-15
CN-17
CN-23
LED Rec.
LED Pause
LED Rew.
LED F.F.
LED Play
LED Stop
+12V
Key Rew.
Key F.F.
Key Play
Key Stop
Key Rec.
Key Pause
GND
+12V
Fader Up
Fader Down
Rec. Mute
Counter Reset
Logic & Power P.C.B. (1/3)
Main P.C.B.

Fig. 7.4.1 Serial No.: A12302901 –

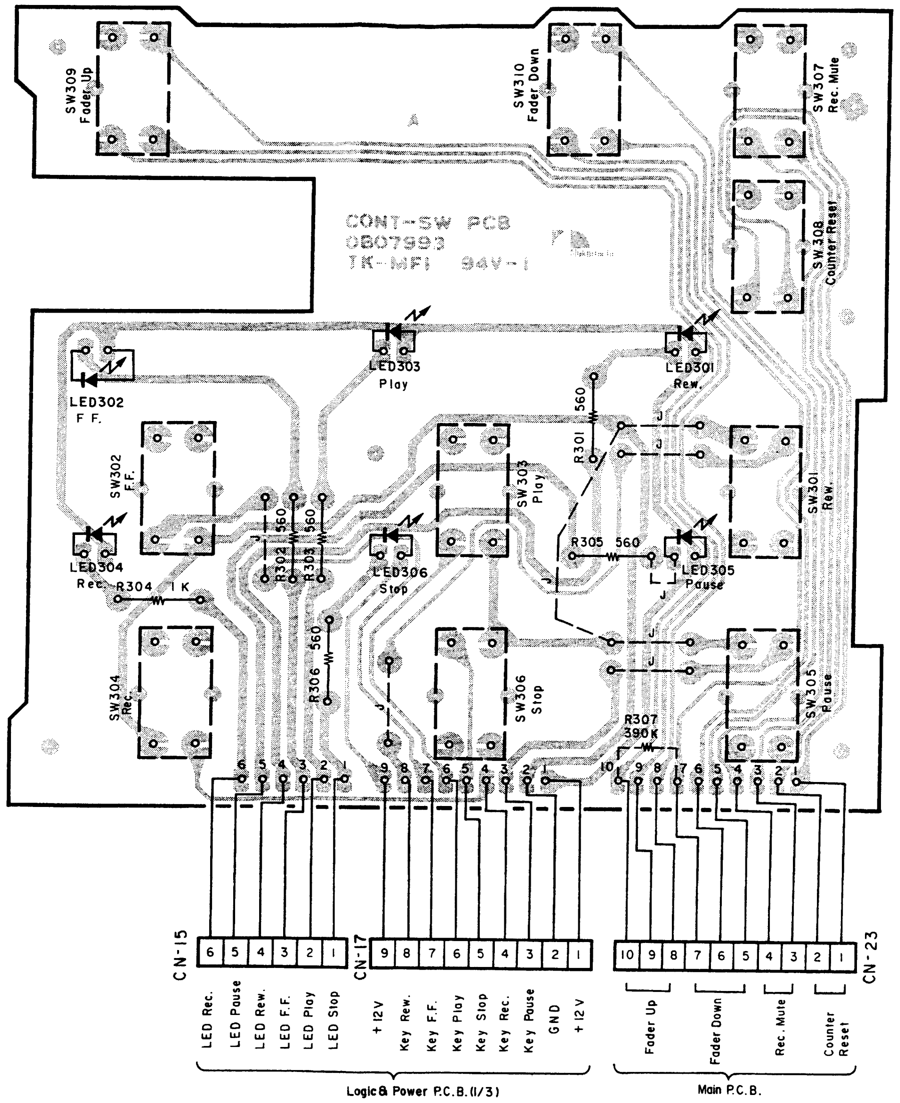

SW309 Fader Up
SW310 Fader Down
SW307 Rec. Mute
SW308 Counter Reset
CONT-SW PCB
0B07993
TK-MFI 94V-1
LED302 F.F.
LED303 Play
LED301 Rew.
SW302 F.F.
SW303 Play
SW301 Rew.
R301 560
R302 560
R303 560
R305 560
LED304 Rec.
R304 1K
LED306 Stop
LED305 Pause
SW304 Rec.
R306 560
SW306 Stop
SW305 Pause
R307 390K
CN-15
CN-17
CN-23
LED Rec.
LED Pause
LED Rew.
LED F.F.
LED Play
LED Stop
+12V
Key Rew.
Key F.F.
Key Play
Key Stop
Key Rec.
Key Pause
GND
+12V
Fader Up
Fader Down
Rec. Mute
Counter Reset
Logic & Power P.C.B. (1/3)
Main P.C.B.

Fig. 7.4.2 Serial Nos.: A12301001 – A12302900

7.3. LED P.C.B. Ass'y

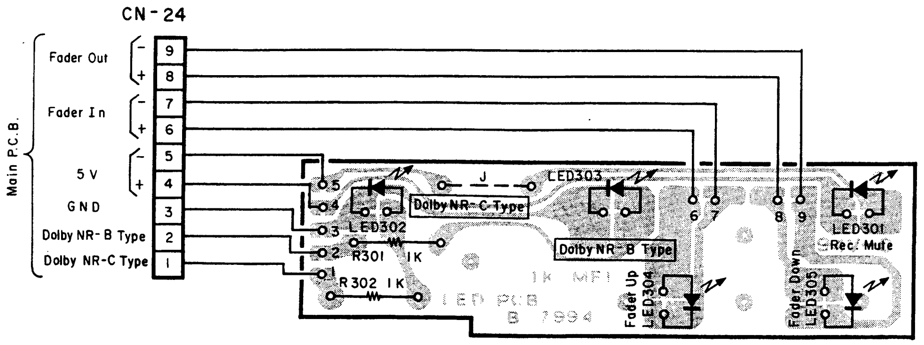

CN-24
Main P.C.B.
Fader Out
Fader In
5V
GND
Dolby NR-B Type
Dolby NR-C Type
LED303
LED302
Dolby NR-C Type
Dolby NR-B Type
R301 1K
R302 1K
LED PCB
B 7994
TK MFI
Fader Up LED304
Fader Down LED305
LED301 Rec. Mute

Fig. 7.3.1 Serial No.: A12302901 –

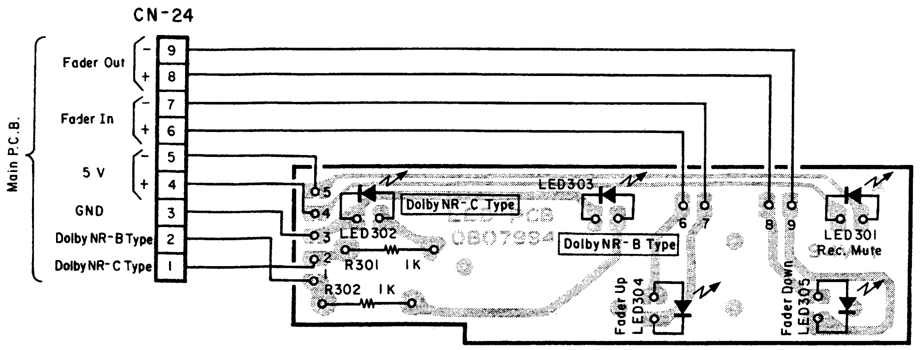

CN-24
Main P.C.B.
Fader Out
Fader In
5V
GND
Dolby NR-B Type
Dolby NR-C Type
LED303
LED302
Dolby NR-C Type
Dolby NR-B Type
0B07994
R301 1K
R302 1K
Fader Up LED304
Fader Down LED305
LED301 Rec. Mute

Fig. 7.3.2 Serial Nos.: A12301001 – A12302900

7.5. Counter-1 P.C.B. Ass'y

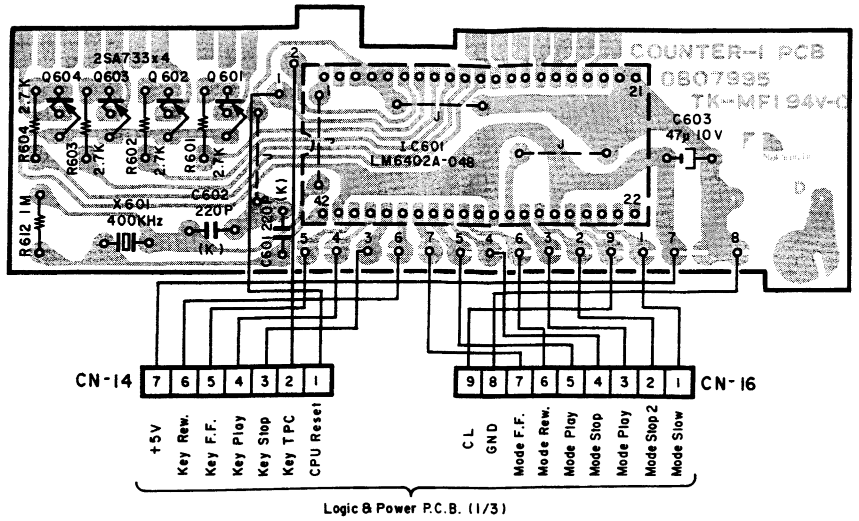

COUNTER-1 PCB
0B07995
TK-MF1 94V-0
2SA733x4
Q604 Q603 Q602 Q601
R604 2.7K
R603 2.7K
R602 2.7K
R601 2.7K
R612 1M
X601 400KHz
C602 220P
C601 220P
IC601 LM6402A-048
C603 47μ 10V
CN-14
CN-16
+5V
Key Rew.
Key F.F.
Key Play
Key Stop
Key TPC
CPU Reset
CL
GND
Mode F.F.
Mode Rew.
Mode Play
Mode Stop
Mode Play
Mode Stop 2
Mode Slow
Logic & Power P.C.B. (1/3)

Fig. 7.5.1 Serial No.: A12302901 –

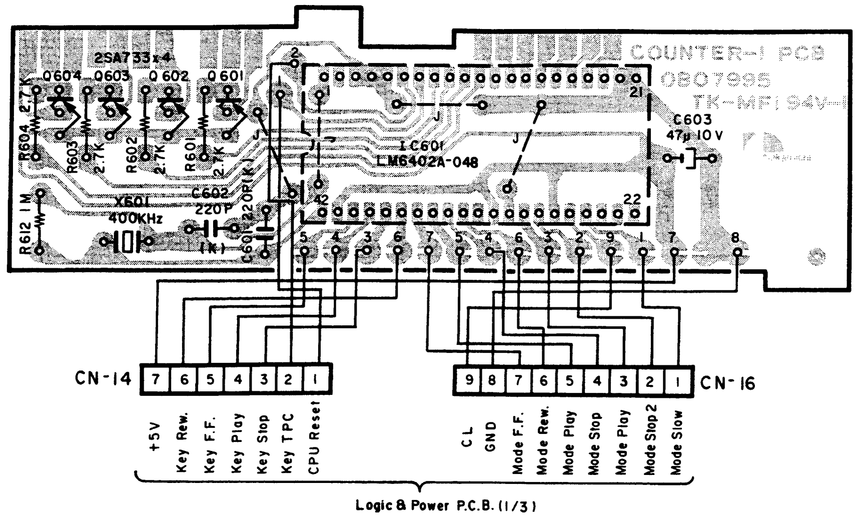

COUNTER-1 PCB
0B07995
TK-MF1 94V-0
2SA733x4
Q604 Q603 Q602 Q601
R604 2.7K
R603 2.7K
R602 2.7K
R601 2.7K
R612 1M
X601 400KHz
C602 220P
C601 220P
IC601 LM6402A-048
C603 47μ 10V
CN-14
CN-16
+5V
Key Rew.
Key F.F.
Key Play
Key Stop
Key TPC
CPU Reset
CL
GND
Mode F.F.
Mode Rew.
Mode Play
Mode Stop
Mode Play
Mode Stop 2
Mode Slow
Logic & Power P.C.B. (1/3)

Fig. 7.5.2 Serial Nos.: A12301001 – A12302900

7.6. Counter-2 P.C.B. Ass'y

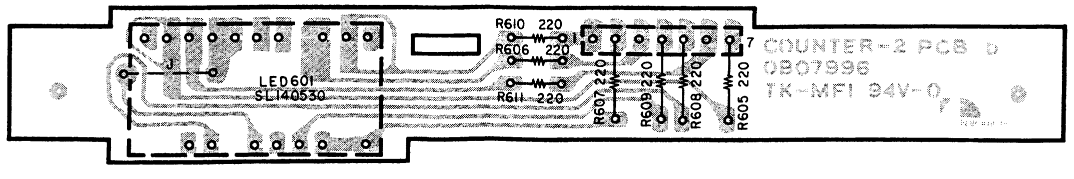

R610 220
R606 220
R611 220
R607 220
R608 220
R609 220
R605 220
LED601
COUNTER-2 PCB
0B07996
TK-MF1 94V-0

Fig. 7.6

7.7. Indicator P.C.B. Ass'y

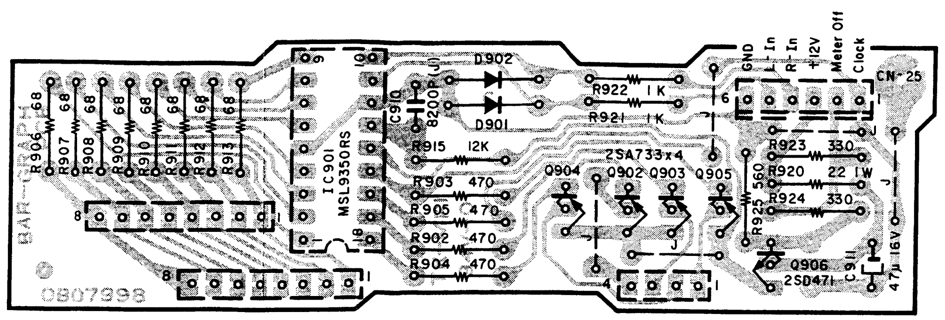

BAR-GRAPH
R906 68
R907 68
R908 68
R909 68
R910 68
R911 68
R912 68
R913 68
IC901 MSL9350RS
C910 820P
D902
D901
R922 1K
R921 1K
R915 12K
2SA733x4
Q904 Q902 Q903 Q905
R903 470
R905 470
R902 470
R904 470
R923 330
R920 22 1W
R924 330
R925 560
Q906 2SD471
C911 47μ 16V
GND
L-In
R-In
+12V
Meter Off
Clock
CN-25
0B07998

Fig. 7.7.1 Serial No.: A12305404 –

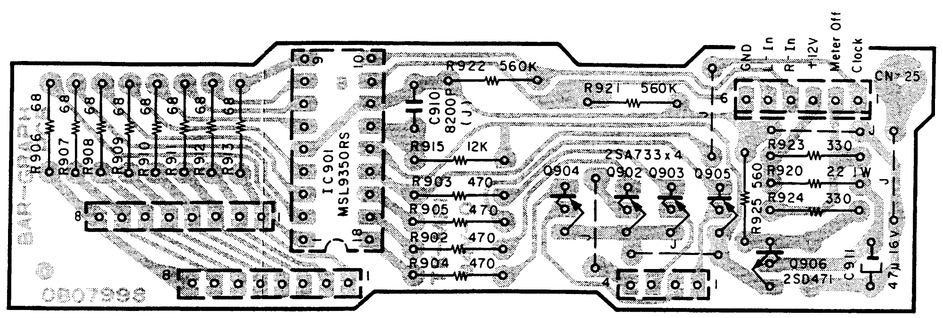

BAR-GRAPH
R906 68
R907 68
R908 68
R909 68
R910 68
R911 68
R912 68
R913 68
IC901 MSL9350RS
C910 820P
R922 560K
R921 560K
R915 12K
2SA733x4
Q904 Q902 Q903 Q905
R903 470
R905 470
R902 470
R904 470
R923 330
R920 22 1W
R924 330
R925 560
Q906 2SD471
C911 47μ 16V
GND
L-In
R-In
+12V
Meter Off
Clock
CN-25
0B07998

Fig. 7.7.2 Serial Nos.: A12302901 – A12305403

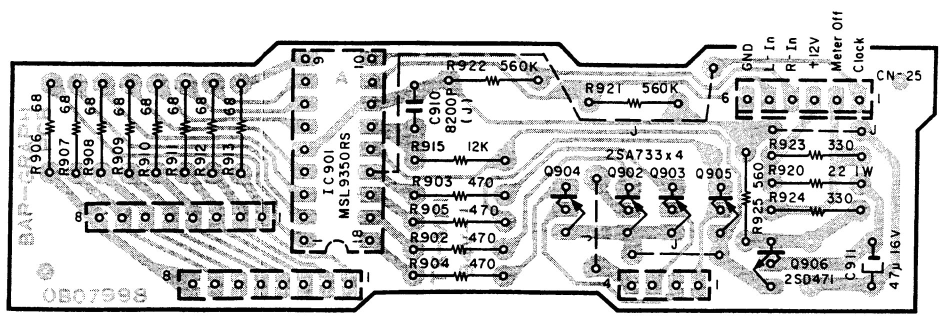

BAR-GRAPH
R906 68
R907 68
R908 68
R909 68
R910 68
R911 68
R912 68
R913 68
IC901 MSL9350RS
C910 820P
R922 560K
R921 560K
R915 12K
2SA733x4
Q904 Q902 Q903 Q905
R903 470
R905 470
R902 470
R904 470
R923 330
R920 22 1W
R924 330
R925 560
Q906 2SD471
C911 47μ 16V
GND
L-In
R-In
+12V
Meter Off
Clock
CN-25
0B07998

Fig. 7.7.3 Serial Nos.: A12301001 – A12302900

Note: Diode is 1SS53, 1S953, or 1S1555 unless otherwise specified.

Schematic Ref. No.	Part No.	Description
	BA04589A	**Counter-1 P.C.B. Ass'y** Serial No.: A12302901 –
	0B07995D	Counter-1 P.C.B.
IC601	0B06320A	IC LM6402A-048
Q601,602 603,604	0B06013A	Transistor 2SA733
X601	0B08908A	Crystal 400kHz 4BR400BT
R601,602 603,604	0B09687A	Carbon Resistor 2.7K ERD-16T J
R612	0B09749A	Carbon Resistor 1M ERD-16T J
C601,602	0B09283A	Ceramic Capacitor 220P 50V K
C603	0B01836A	Electrolytic Capacitor 47μ 10V
CN14	0B08930B	7P-H Connector
CN16	0B08929A	9P-H Connector 450mm
	0M04223A	Label CN-16 (1 pce.)
	0M04231A	Label CN-14 (1 pce.)
	0E00037A	Earth Lug B-5 (1 pce.)
	BA04589A	**Counter-1 P.C.B. Ass'y** Serial Nos.: A12301001 – A12302900
	0B07995A	Counter-1 P.C.B.
IC601	0B06320A	IC LM6402A-048
Q601,602 603,604	0B06013A	Transistor 2SA733
X601	0B08908A	Crystal 400kHz 4BR400BT
R601,602 603,604	0B09687A	Carbon Resistor 2.7K ERD-16T J
R612	0B09749A	Carbon Resistor 1M ERD-16T J
C601,602	0B09283A	Ceramic Capacitor 220P 50V K
C603	0B01836A	Electrolytic Capacitor 47μ 10V
CN14	0B08930B	7P-H Connector
CN16	0B08929A	9P-H Connector 450mm
	0M04223A	Label CN-16 (1 pce.)
	0M04231A	Label CN-14 (1 pce.)
	0E00037A	Earth Lug B-5 (1 pce.)
	BA04590A	**Counter-2 P.C.B. Ass'y**
	0B07996D	Counter-2 P.C.B.
LED601	0B06342A	Counter LED SL-1405-20
R605-611	0B09661A	Carbon Resistor 220 ERD-16T J (7 pcs.)
	0J04582A	Counter Spacer (1 pce.)
	BA04591A	**Indicator P.C.B. Ass'y** Serial No.: A12305404 –
	0B07998C	Indicator P.C.B.
IC901	0B06284A	IC MSL9350RS
Q902,903 904,905	0B06013A	Transistor 2SA733
Q906	0B06066A	Transistor 2SD471
D901,902	0B06181A	Silicon Diode 1SS53
R902,903 904,905	0B05576A	Carbon Resistor 470 ERD-25T J
R906-913	0B01704A	Carbon Resistor 68 ERD-25T J (8 pcs.)
R915	0B09263A	Carbon Resistor 12K ERD-25T J
R920	0B09378A	Fail Safe Type Resistor 22 RSF-1B J
R921,922	0B01857A	Carbon Resistor 1K ERD-25T J
R923,924	0B05577A	Carbon Resistor 330 ERD-25T J

Schematic Ref. No.	Part No.	Description
R925	0B05575A	Carbon Resistor 560 ERD-25T J
C910	0B05814A	Mylar Capacitor 8200P 50V J
C911	0B01403A	Electrolytic Capacitor 47µ 16V
CN24	0B08933A	6P-S Post
	0B05266A	8P Flat Cable 50mm (2 pcs.)
	0B05267A	4P Flat Cable 50mm (1 pce.)
	0M04237A	Label CN-25 (1 pce.)
	0E00037A	Earth Lug B-5 (1 pce.)
	0B08957A	Meter Display SB103 (1 pce.)
	BA04591A	**Indicator P.C.B. Ass'y**
		Serial Nos.: A12302901 – A12305403
	0B07998B	Indicator P.C.B.
IC901	0B06284A	IC MSL9350RS
Q902,903 904,905	0B06013A	Transistor 2SA733
Q906	0B06066A	Transistor 2SD471
R902,903 904,905	0B05576A	Carbon Resistor 470 ERD-25T J
R906-913	0B01704A	Carbon Resistor 68 ERD-25T J (8 pcs.)
R915	0B09263A	Carbon Resistor 12K ERD-25T J
R920	0B09378A	Fail Safe Type Resistor 22 RSF-1B J
R921,922	0B05784A	Carbon Resistor 560K ERD-25T J
R923,924	0B05577A	Carbon Resistor 330 ERD-25T J
R925	0B05575A	Carbon Resistor 560 ERD-25T J
C910	0B05814A	Mylar Capacitor 8200P 50V J
C911	0B01403A	Electrolytic Capacitor 47µ 16V
CN24	0B08933A	6P-S Post
	0B05266A	8P Flat Cable 50mm (2 pcs.)
	0B05267A	4P Flat Cable 50mm (1 pce.)
	0M04237A	Label CN-25 (1 pce.)
	0E00037A	Earth Lug B-5 (1 pce.)
	0B08957A	Meter Display SB103 (1 pce.)
	BA04591A	**Indicator P.C.B. Ass'y**
		Serial Nos.: A12301001 – A12302900
	0B07998A	Indicator P.C.B.
IC901	0B06284A	IC MSL9350RS
Q902,903 904,905	0B06013A	Transistor 2SA733
Q906	0B06066A	Transistor 2SD471
R902,903 904,905	0B05576A	Carbon Resistor 470 ERD-25T J
R906-913	0B01704A	Carbon Resistor 68 ERD-25T J (8 pcs.)
R915	0B09263A	Carbon Resistor 12K ERD-25T J
R920	0B09378A	Fail Safe Type Resistor 22 RSF-1B J
R921,922	0B05784A	Carbon Resistor 560K ERD-25T J
R923,924	0B05577A	Carbon Resistor 330 ERD-25T J
R925	0B05575A	Carbon Resistor 560 ERD-25T J
C910	0B05814A	Mylar Capacitor 8200P 50V J
C911	0B01403A	Electrolytic Capacitor 47µ 16V
CN24	0B08933A	6P-S Post
	0B05266A	8P Flat Cable 50mm (2 pcs.)
	0B05267A	4P Flat Cable 50mm (1 pce.)
	0M04237A	Label CN-25 (1 pce.)
	0E00037A	Earth Lug B-5 (1 pce.)
	0B08957A	Meter Display SB103 (1 pce.)

Schematic Ref. No.	Part No.	Description
	BA04731A	**Amp. Switch P.C.B. Ass'y**
		Serial No.: A12305404 –
	0B07997C	Amp. Switch P.C.B.
VR301	0B07347A	Volume 10K (A) x 2
VR302	0B07416A	Volume 100K (A) x 2
R101,201	0B05622A	Carbon Resistor 2.2K ERD-25T J
R102,202	0B05776A	Carbon Resistor 1M ERD-25T J
R103,203	0B01682A	Carbon Resistor 6.8K ERD-25T J
R301,302 306	0B01889A	Carbon Resistor 100K ERD-25T J
R303	0B01888A	Carbon Resistor 10K ERD-25T J
C101,201	0B01804A	Mylar Capacitor 3900P 50V J
SW301-304	0B07401A	Push Switch (4 pcs.)
	BA04587A	**Amp. Switch P.C.B. Ass'y**
		Serial Nos.: A12301001 – A12305403
	0B07997B	Amp. Switch P.C.B.
VR301	0B07347A	Volume 10K (A) x 2
VR302	0B07355A	Volume 5K (B) x 2
R101,201	0B05622A	Carbon Resistor 2.2K ERD-25T J
R102,202	0B05776A	Carbon Resistor 1M ERD-25T J
R301,302 306	0B01889A	Carbon Resistor 100K ERD-25T J
R303	0B01888A	Carbon Resistor 10K ERD-25T J
C101,201	0B01804A	Mylar Capacitor 3900P 50V J
SW301-304	0B07401A	Push Switch (4 pcs.)
	BA04631A	**Monitor Switch P.C.B. Ass'y**
	0B02521B	Monitor Switch P.C.B.
R301	0B01887A	Carbon Resistor 5.6K ERD-25T J
SW301	0B07399A	Push Switch 6-2S

7.8. Amp. Switch P.C.B. Ass'y

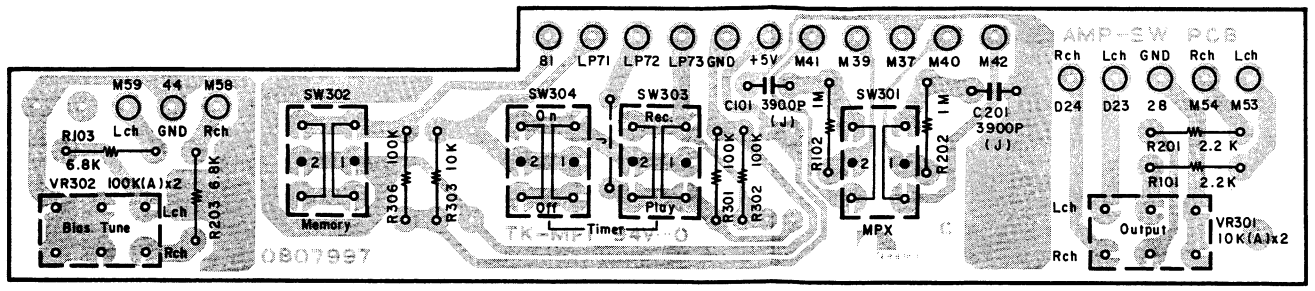

81
LP71
LP72
LP73
GND
+5V
M41
M39
M37
M40
M42
AMP-SW PCB
Rch
Lch
GND
Rch
Lch
M59
44
M58
Lch
GND
Rch
R103
6.8K
VR302 100K(A)x2
Bias Tune
Lch
Rch
R203 6.8K
SW302
Memory
R306 100K
R303 10K
0B07997
SW304
On
Off
SW303
Rec.
Play
Timer
TK-MP1 94V-0
R301 100K
R302 100K
C101 3900P (J)
R102 1M
SW301
MPX
R202 1M
C201 3900P (J)
D24
D23
28
M54
M53
R201 2.2K
R101 2.2K
Output
VR301 10K(A)x2

Fig. 7.8.1 Serial No.: A12305404 –

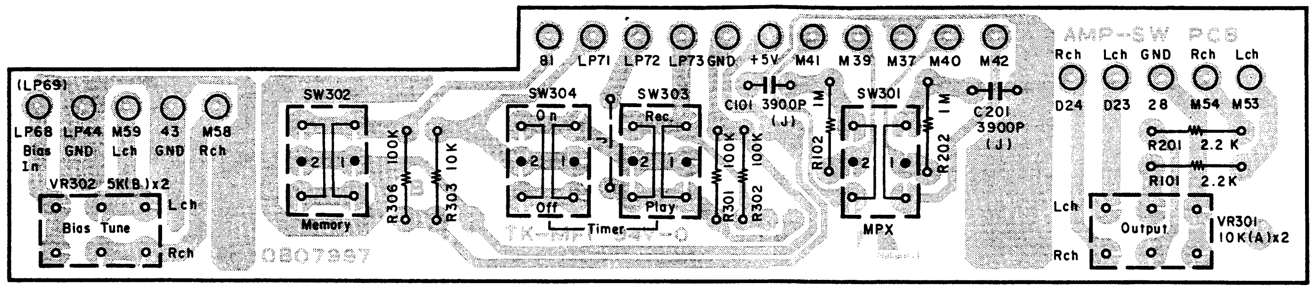

(LP69)
LP68
LP44
M59
43
M58
Bias In
GND
Lch
GND
Rch
VR302 5K(B)x2
Bias Tune
Lch
Rch
SW302
Memory
R306 100K
R303 10K
0B07997
SW304
On
Off
SW303
Rec.
Play
Timer
81
LP71
LP72
LP73
GND
+5V
M41
M39
M37
M40
M42
AMP-SW PCB
C101 3900P (J)
R102 1M
SW301
MPX
R202 1M
C201 3900P (J)
Rch
Lch
GND
Rch
Lch
D24
D23
28
M54
M53
R201 2.2K
R101 2.2K
Output
VR301 10K(A)x2

Fig. 7.8.2 Serial Nos.: A12301001 – A12305403

7.9. Monitor Switch P.C.B. Ass'y

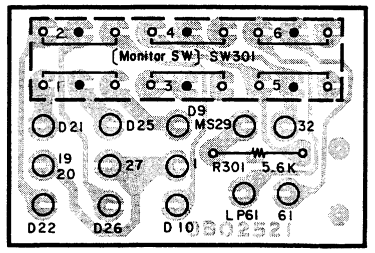

2
4
6
(Monitor SW) SW301
1
3
5
D21
D25
D9
MS29
32
19
20
27
1
R301 5.6K
LP61
61
D22
D26
D10
0B02521

Fig. 7.9

7.10. Dolby NR P.C.B. Ass'y

7.10.1. Dolby NR P.C.B. Ass'y (U.S.A. & Canada)

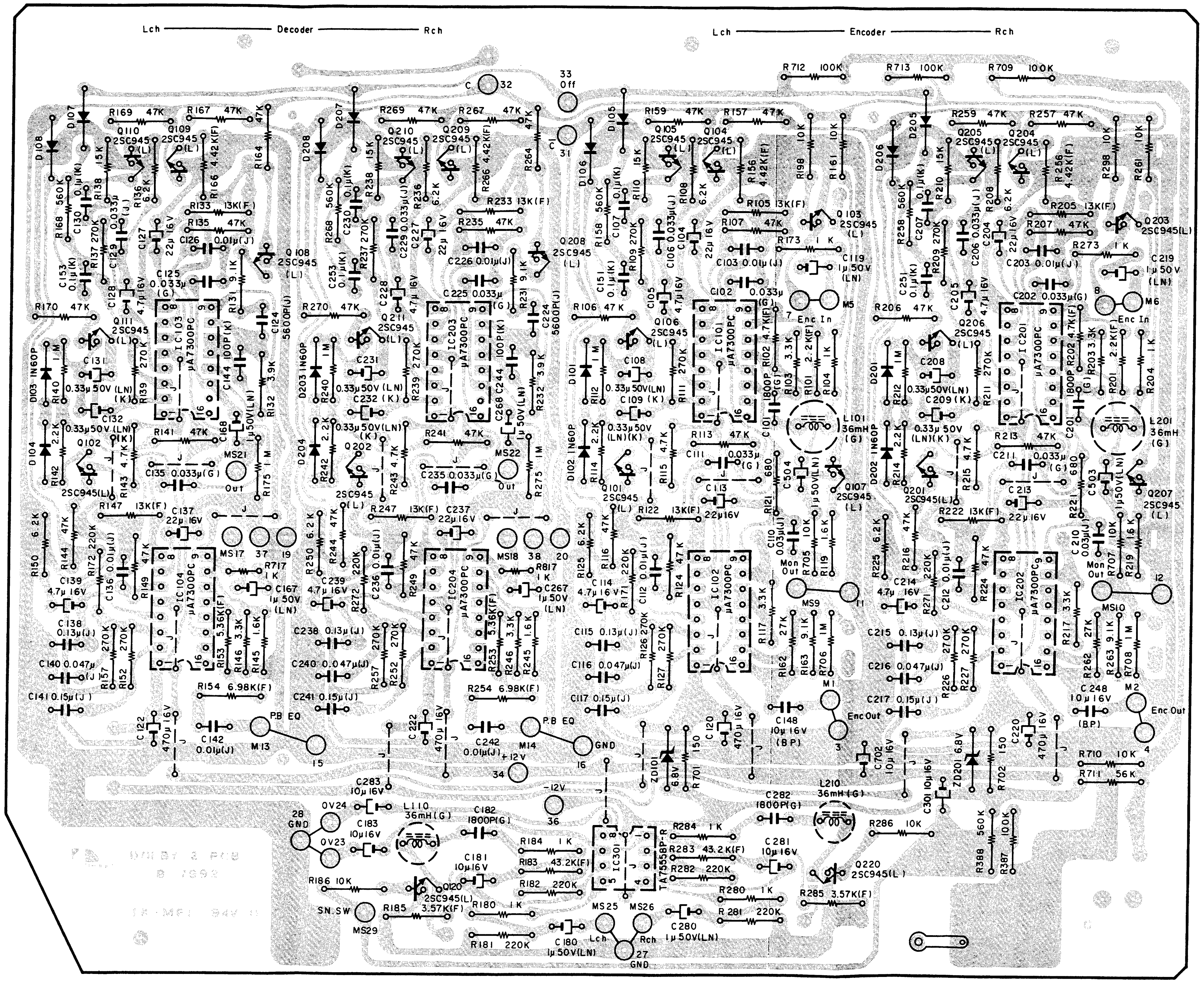

Lch
Decoder
Rch
Lch
Encoder
Rch
R712 100K
R713 100K
R709 100K
C 32
33 Off
31
R169 47K
R167 47K
R269 47K
R267 47K
R159 47K
R157 47K
R259 47K
R257 47K
Q110
Q109
2SC945
Q210
Q209
Q105
Q104
Q205
Q204
Q203 2SC945(L)
Q103 2SC945 (L)
Q108 2SC945 (L)
Q208 2SC945 (L)
IC103 μA7300PC
IC203 μA7300PC
IC101 μA7300PC
IC201 μA7300PC
IC104 μA7300PC
IC204 μA7300PC
IC102 μA7300PC
IC202 μA7300PC
IC301 TA75558P-R
D103 1N60P
D203 1N60P
D102 1N60P
D202 1N60P
D104
D204
D101
D201
D107
D108
D207
D208
D105
D106
D205
D206
Enc In
M5
M6
L101 36mH (G)
L201 36mH (G)
L110 36mH (G)
L210 36mH (G)
MS21
MS22
MS17
MS18
MS9
MS10
MS25
MS26
MS29
M1
M2
M13
M14
Out
Mon Out
Enc Out
PB EQ
GND
+12V
-12V
15
16
34
36
37
38
19
20
4
3
12
11
28 GND
OV24
OV23
Q120 2SC945(L)
Q220 2SC945(L)
Q201 2SC945(L)
Q207 2SC945 (L)
Q107 2SC945 (L)
Q101 2SC945 (L)
Q102 2SC945(L)
Q202 2SC945 (L)
ZD101 6.8V
ZD201 6.8V
R710 10K
R711 56K
R286 10K
R186 10K
R185 3.57K(F)
R285 3.57K(F)
R184 1K
R183 43.2K(F)
R182 220K
R181 220K
R180 1K
R284 1K
R283 43.2K(F)
R282 220K
R281 220K
R280 1K
C180 1μ 50V(LN)
C280 1μ 50V(LN)
C182 1800P(G)
C282 1800P(G)
C181 10μ16V
C281 10μ16V
C183 10μ16V
C283 10μ16V
SN.SW
Lch
Rch
27 GND

Fig. 7.10.1.1 Serial No.: A12302901 –

Note: Diode is 1SS53, 1S953, or 1S1555 unless otherwise specified.

Schematic Ref. No.	Part No.	Description		
	BA04574A	Dolby NR P.C.B. Ass'y (U.S.A. & Canada) Serial No.: A12302901 –		
	– PB Dolby NR –			
IC103,104 203,204	0B06200A	IC	μA7300PC	
Q102,108 109,110 111,202 208,209 210,211	0B01872A	Transistor	2SC945 (L)	
D103,203	0B00030A	Germanium Diode	1N60P	
D104,107 108,204 207,208	0B01909A	Silicon Diode	1S1555	
R131,231	0B05694A	Carbon Resistor	9.1K	ERD-25T J
R132,232	0B05675A	Carbon Resistor	3.9K	ERD-25T J
R133,147 233,247	0B09557A	Metal Film Resistor	13K	SN14K2E F
R135,141 144,149 164,167 169,170 235,241 244,249 264,267 269,270	0B05641A	Carbon Resistor	47K	ERD-25T J
R136,150 236,250	0B09271A	Carbon Resistor	6.2K	ERD-25T J
R137,139 152,157 237,239 252,257	0B05620A	Carbon Resistor	270K	ERD-25T J
R138,238	0B05591A	Carbon Resistor	15K	ERD-25T J
R140,175 240,275	0B05776A	Carbon Resistor	1M	ERD-25T J
R142,242	0B05622A	Carbon Resistor	2.2K	ERD-25T J
R143,243	0B01846A	Carbon Resistor	4.7K	ERD-25T J
R145,245	0B09565A	Carbon Resistor	1.6K	ERD-25T J
R146,246	0B01681A	Carbon Resistor	3.3K	ERD-25T J
R153,253	0B09426A	Metal Film Resistor	5.36K	SN14K2E F
R154,254	0B09604A	Metal Film Resistor	6.98K	SN14K2E F
R166,266	0B09558A	Metal Film Resistor	4.42K	SN14K2E F
R168,268	0B05784A	Carbon Resistor	560K	ERD-25T J
R172,272	0B05625A	Carbon Resistor	220K	ERD-25T J
R717,817	0B01857A	Carbon Resistor	1K	ERD-25T J
C122,222	0B01392A	Electrolytic Capacitor	470μ	16V
C124,224	0B05659A	Mylar Capacitor	5600P	50V J
C125,135 225,235	0B09240A	PP Capacitor	0.033μ	100V G
C126,136 142,226 236,242	0B05681A	Mylar Capacitor	0.01μ	50V J
C127,137 227,237	0B01862A	Electrolytic Capacitor	22μ	16V
C128,139 228,239	0B01389A	Electrolytic Capacitor	4.7μ	16V
C129,229	0B05583A	Mylar Capacitor	0.033μ	50V J
C130,153 230,253	0B01603A	Mylar Capacitor	0.1μ	50V K

Schematic Ref. No.	Part No.	Description
C131,132 231,232	0B09567A	Electrolytic Capacitor 0.33μ 50V (LN) K
C138,238	0B09566A	Mylar Capacitor 0.13μ 50V J
C140,240	0B05796A	Mylar Capacitor 0.047μ 50V J
C141,241	0B05914A	Mylar Capacitor 0.15μ 50V J
C144,244	0B09282A	Ceramic Capacitor 100P 50V K
C167,168 267,268	0B09494A	Electrolytic Capacitor 1μ 50V (LN)
	0B08714A	IC Socket 16P (4 pcs.)
	0E00037A	Earth Lug B-5 (1 pce.)
	— Rec. Dolby NR —	
IC101,102 201,202	0B06200A	IC μA7300PC
Q101,103 104,105 106,107 201,203 204,205 206,207	0B01872A	Transistor 2SC945 (L)
ZD101,201	0B06315A	Zener Diode 6.8V XZ068
D101,105 106,201 205,206	0B01909A	Silicon Diode 1S1555
D102,202	0B00030A	Germanium Diode 1N60P
L101,201	0B06676A	Inductor 36mH G
R101,201	0B09201A	Metal Film Resistor 2.2K SN14K2E F
R102,202	0B09356A	Metal Film Resistor 4.7K SN14K2E F
R103,117 203,217	0B01681A	Carbon Resistor 3.3K ERD-25T J
R104,173 204,273	0B01857A	Carbon Resistor 1K ERD-25T J
R105,122 205,222	0B09557A	Metal Film Resistor 13K SN14K2E F
R106,107 113,116 124,157 159,206 207,213 216,224 257,259	0B05641A	Carbon Resistor 47K ERD-25T J
R108,125 208,225	0B09271A	Carbon Resistor 6.2K ERD-25T J
R109,111 126,127 209,211 226,227	0B05620A	Carbon Resistor 270K ERD-25T J
R110,210	0B05591A	Carbon Resistor 15K ERD-25T J
R112,212 706,708	0B05776A	Carbon Resistor 1M ERD-25T J
R114,214	0B05622A	Carbon Resistor 2.2K ERD-25T J
R115,215	0B01846A	Carbon Resistor 4.7K ERD-25T J
R119,219	0B09565A	Carbon Resistor 1.6K ERD-25T J
R121,221	0B05794A	Carbon Resistor 680 ERD-25T J
R156,256	0B09558A	Metal Film Resistor 4.42K SN14K2E F
R158,258	0B05784A	Carbon Resistor 560K ERD-25T J
R161,198 261,298 705,707	0B01888A	Carbon Resistor 10K ERD-25T J
R162,262	0B05743A	Carbon Resistor 27K ERD-25T J
R163,263	0B05694A	Carbon Resistor 9.1K ERD-25T J
R171,271	0B05625A	Carbon Resistor 220K ERD-25T J
R701,702	0B05795A	Carbon Resistor 150 ERD-25T J
C101,201	0B09409A	PP Capacitor 1800P 100V G
C102,111 202,211	0B09240A	PP Capacitor 0.033μ 100V G
C103,112 203,212	0B05681A	Mylar Capacitor 0.01μ 50V J
C104,113 204,213	0B01862A	Electrolytic Capacitor 22μ 16V
C105,114 205,214	0B01389A	Electrolytic Capacitor 4.7μ 16V
C106,206	0B05583A	Mylar Capacitor 0.033μ 50V J
C107,151 207,251	0B01603A	Mylar Capacitor 0.1μ 50V K
C108,109 208,209	0B09567A	Electrolytic Capacitor 0.33μ 50V (LN) K
C110,210	0B09594A	Mylar Capacitor 0.03μ 50V J
C115,215	0B09566A	Mylar Capacitor 0.13μ 50V J
C116,216	0B05796A	Mylar Capacitor 0.047μ 50V J
C117,217	0B05914A	Mylar Capacitor 0.15μ 50V J
C119,219 503,504	0B09223A	Electrolytic Capacitor 1μ 50V (LN)
C120,220	0B01392A	Electrolytic Capacitor 470μ 16V
C148,248	0B09163A	Electrolytic Capacitor 10μ 16V (BP)
	0B08714A	IC Socket 16P (4 pcs.)
	— Line Amp. —	
IC301	0B06287A	IC TA75558P-R
Q120,220	0B01872A	Transistor 2SC945 (L)
L110,210	0B06676A	Inductor 36mH G
R180,184 280,284	0B01857A	Carbon Resistor 1K ERD-25T J
R181,182 281,282	0B05625A	Carbon Resistor 220K ERD-25T J
R183,283	0B09582A	Metal Film Resistor 43.2K SN14K2E F
R185,285	0B09507A	Metal Film Resistor 3.57K SN14K2E F
R186,286 710	0B01888A	Carbon Resistor 10K ERD-25T J
R387,709 712,713	0B01889A	Carbon Resistor 100K ERD-25T J
R388	0B05784A	Carbon Resistor 560K ERD-25T J
R711	0B05508A	Carbon Resistor 56K ERD-25T J
C180,280	0B09223A	Electrolytic Capacitor 1μ 50V (LN)
C181,183 281,283 301,702	0B01412A	Electrolytic Capacitor 10μ 16V
C182,282	0B09409A	PP Capacitor 1800P 100V G
	— Miscellaneous —	
	0B07992C	Dolby NR P.C.B.

Schematic Ref. No.	Part No.	Description
	BA04574A	**Dolby NR P.C.B. Ass'y (U.S.A. & Canada)** Serial Nos.: A12301001 – A12302900
	– PB Dolby NR –	
IC103,104 203,204	0B06200A	IC µA7300PC
Q102,108 109,110 111,202 208,209 210,211	0B01872A	Transistor 2SC945 (L)
D103,203	0B00030A	Germanium Diode 1N60P
D104,107 108,204 207,208	0B01909A	Silicon Diode 1S1555
R131,231	0B05694A	Carbon Resistor 9.1K ERD-25T J
R132,232	0B05675A	Carbon Resistor 3.9K ERD-25T J
R133,147 233,247	0B09557A	Metal Film Resistor 13K SN14K2E F
R135,141 144,149 164,167 169,170 235,241 244,249 264,267 269,270	0B05641A	Carbon Resistor 47K ERD-25T J
R136,150 236,250	0B09271A	Carbon Resistor 6.2K ERD-25T J
R137,139 152,157 237,239 252,257	0B05620A	Carbon Resistor 270K ERD-25T J
R138,238	0B05591A	Carbon Resistor 15K ERD-25T J
R140,175 240,275	0B05776A	Carbon Resistor 1M ERD-25T J
R142,242	0B05622A	Carbon Resistor 2.2K ERD-25T J
R143,243	0B01846A	Carbon Resistor 4.7K ERD-25T J
R145,245	0B09565A	Carbon Resistor 1.6K ERD-25T J
R146,246	0B01681A	Carbon Resistor 3.3K ERD-25T J
R153,253	0B09426A	Metal Film Resistor 5.36K SN14K2E F
R154,254	0B09604A	Metal Film Resistor 6.98K SN14K2E F
R166,266	0B09558A	Metal Film Resistor 4.42K SN14K2E F
R168,268	0B05784A	Carbon Resistor 560K ERD-25T J
R172,272	0B05625A	Carbon Resistor 220K ERD-25T J
R717,817	0B01857A	Carbon Resistor 1K ERD-25T J
C122,222	0B01392A	Electrolytic Capacitor 470µ 16V
C124,224	0B05659A	Mylar Capacitor 5600P 50V J
C125,135 225,235	0B09240A	PP Capacitor 0.033µ 100V G
C126,136 142,226 236,242	0B05681A	Mylar Capacitor 0.01µ 50V J
C127,137 227,237	0B01862A	Electrolytic Capacitor 22µ 16V
C128,139 228,239	0B01389A	Electrolytic Capacitor 4.7µ 16V
C129,229	0B05583A	Mylar Capacitor 0.033µ 50V J
C130,153 230,253	0B01603A	Mylar Capacitor 0.1µ 50V K

Schematic Ref. No.	Part No.	Description
C131,132 231,232	0B09567A	Electrolytic Capacitor 0.33µ 50V (LN) K
C138,238	0B09566A	Mylar Capacitor 0.13µ 50V J
C140,240	0B05796A	Mylar Capacitor 0.047µ 50V J
C141,241	0B05914A	Mylar Capacitor 0.15µ 50V J
C144,244	0B09282A	Ceramic Capacitor 100P 50V K
C167,168 267,268	0B09494A	Electrolytic Capacitor 1µ 50V (LN)
	0B08714A	IC Socket 16P (4 pcs.)
	0E00037A	Earth Lug B-5 (1 pce.)
	– Rec. Dolby NR –	
IC101,102 201,202	0B06200A	IC µA7300PC
Q101,103 104,105 106,107 201,203 204,205 206,207	0B01872A	Transistor 2SC945 (L)
ZD101,201	0B06315A	Zener Diode 6.8V XZ068
D101,105 106,201 205,206	0B01909A	Silicon Diode 1S1555
D102,202	0B00030A	Germanium Diode 1N60P
L101,201	0B06676A	Inductor 36mH G
R101,201	0B09201A	Metal Film Resistor 2.2K SN14K2E F
R102,202	0B09356A	Metal Film Resistor 4.7K SN14K2E F
R103,117 203,217	0B01681A	Carbon Resistor 3.3K ERD-25T J
R104,173 204,273	0B01857A	Carbon Resistor 1K ERD-25T J
R105,122 205,222	0B09557A	Metal Film Resistor 13K SN14K2E F
R106,107 113,116 124,157 159,206 207,213 216,224 257,259	0B05641A	Carbon Resistor 47K ERD-25T J
R108,125 208,225	0B09271A	Carbon Resistor 6.2K ERD-25T J
R109,111 126,127 209,211 226,227	0B05620A	Carbon Resistor 270K ERD-25T J
R110,210	0B05591A	Carbon Resistor 15K ERD-25T J
R112,212 706,708	0B05776A	Carbon Resistor 1M ERD-25T J
R114,214	0B05622A	Carbon Resistor 2.2K ERD-25T J
R115,215	0B01846A	Carbon Resistor 4.7K ERD-25T J
R119,219	0B09565A	Carbon Resistor 1.6K ERD-25T J
R121,221	0B05794A	Carbon Resistor 680 ERD-25T J
R156,256	0B09558A	Metal Film Resistor 4.42K SN14K2E F
R158,258	0B05784A	Carbon Resistor 560K ERD-25T J
R161,198 261,298 705,707	0B01888A	Carbon Resistor 10K ERD-25T J
R162,262	0B05743A	Carbon Resistor 27K ERD-25T J
R163,263	0B05694A	Carbon Resistor 9.1K ERD-25T J

Schematic Ref. No.	Part No.	Description
R171,271	0B05625A	Carbon Resistor 220K ERD-25T J
R701,702	0B05795A	Carbon Resistor 150 ERD-25T J
C101,201	0B09409A	PP Capacitor 1800P 100V G
C102,111 202,211	0B09240A	PP Capacitor 0.033μ 100V G
C103,112 203,212	0B05681A	Mylar Capacitor 0.01μ 50V J
C104,113 204,213	0B01862A	Electrolytic Capacitor 22μ 16V
C105,114 205,214	0B01389A	Electrolytic Capacitor 4.7μ 16V
C106,206	0B05583A	Mylar Capacitor 0.033μ 50V J
C107,151 207,251	0B01603A	Mylar Capacitor 0.1μ 50V K
C108,109 208,209	0B09567A	Electrolytic Capacitor 0.33μ 50V (LN) K
C110,210	0B09594A	Mylar Capacitor 0.03μ 50V J
C115,215	0B09566A	Mylar Capacitor 0.13μ 50V J
C116,216	0B05796A	Mylar Capacitor 0.047μ 50V J
C117,217	0B05914A	Mylar Capacitor 0.15μ 50V J
C119,219 503,504	0B09223A	Electrolytic Capacitor 1μ 50V (LN)
C120,220	0B01392A	Electrolytic Capacitor 470μ 16V
C148,248	0B09163A	Electrolytic Capacitor 10μ 16V (BP)
	0B08714A	IC Socket 16P (4 pcs.)
	— Line Amp. —	
IC301	0B06287A	IC TA75558P-R
Q120,220	0B01872A	Transistor 2SC945 (L)
L110,210	0B06676A	Inductor 36mH G
R180,184 280,284	0B01857A	Carbon Resistor 1K ERD-25T J
R181,182 281,282	0B05625A	Carbon Resistor 220K ERD-25T J
R183,283	0B09582A	Metal Film Resistor 43.2K SN14K2E F
R185,285	0B09507A	Metal Film Resistor 3.57K SN14K2E F
R186,286 710	0B01888A	Carbon Resistor 10K ERD-25T J
R387,709 712,713	0B01889A	Carbon Resistor 100K ERD-25T J
R388	0B05784A	Carbon Resistor 560K ERD-25T J
R711	0B05508A	Carbon Resistor 56K ERD-25T J
C180,280	0B09223A	Electrolytic Capacitor 1μ 50V (LN)
C181,183 281,283 301,702	0B01412A	Electrolytic Capacitor 10μ 16V
C182,282	0B09409A	PP Capacitor 1800P 100V G
	— Miscellaneous —	
	0B07992A	Dolby NR P.C.B.

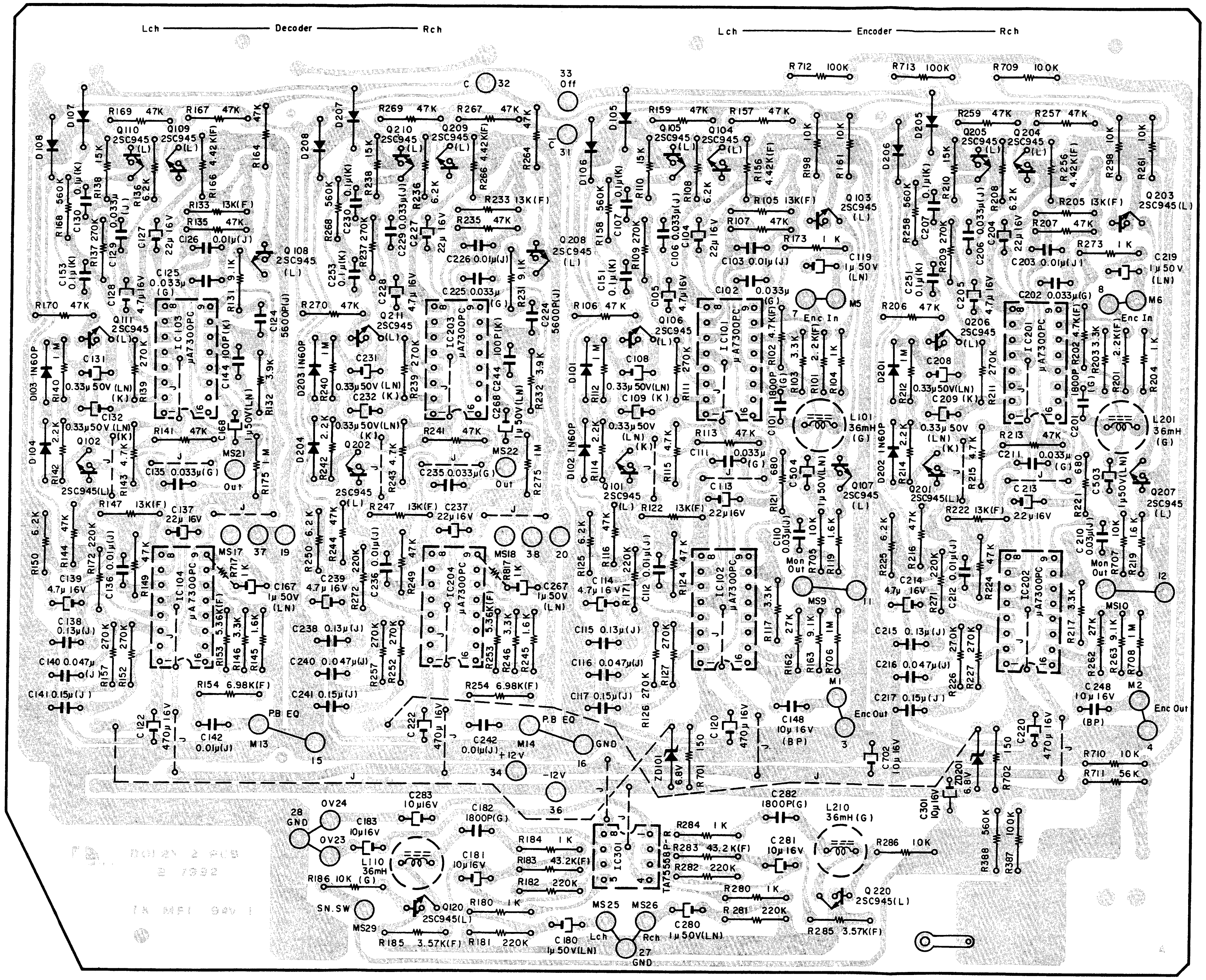
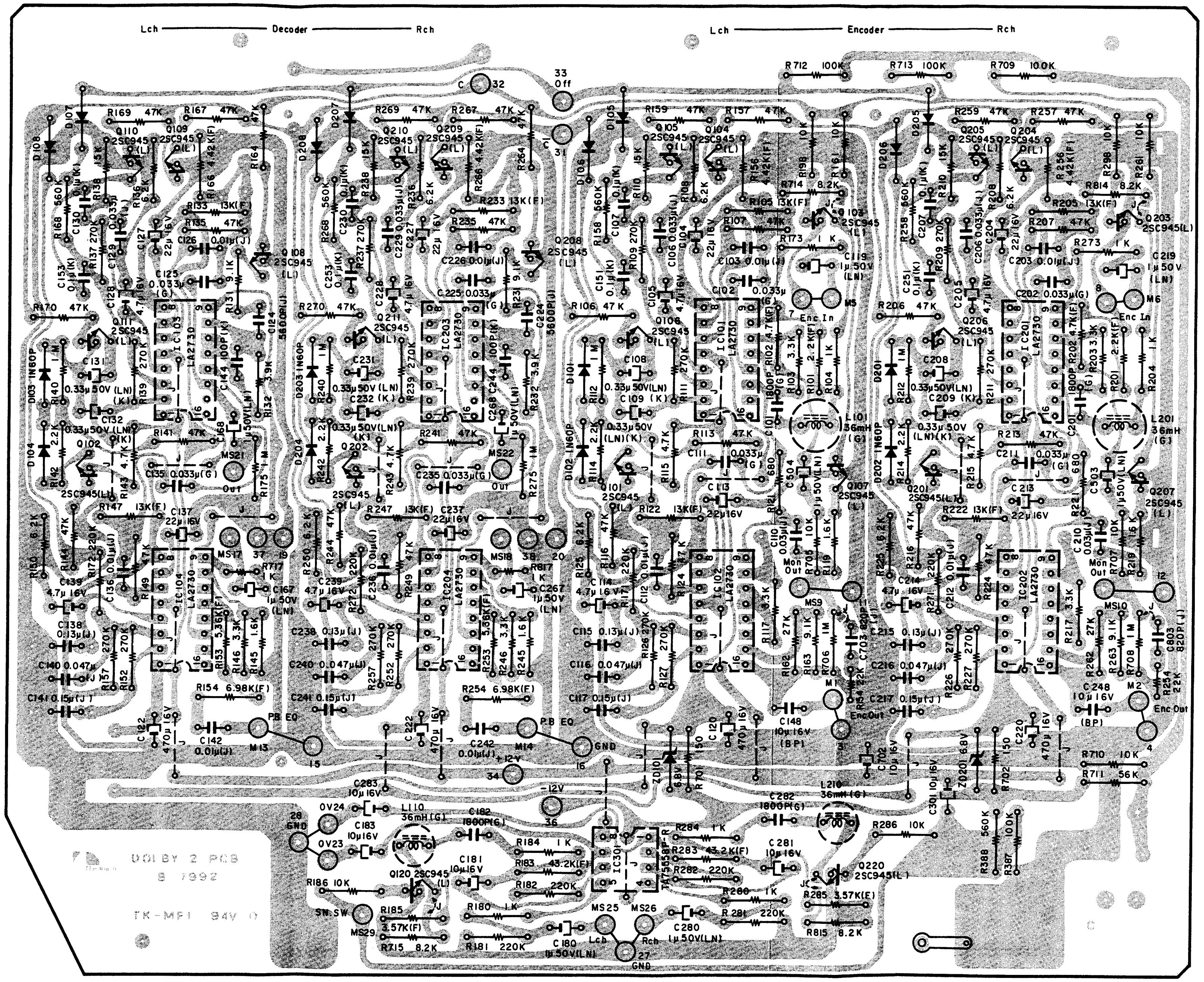

Lch — Decoder — Rch
Lch — Encoder — Rch
Enc In
Enc Out
Mon Out
PB EQ
GND
+12V
-12V
SN.SW
Lch
Rch
IC101 μA7300PC
IC102 μA7300PC
IC103 μA7300PC
IC104 μA7300PC
IC201 μA7300PC
IC202 μA7300PC
IC203 μA7300PC
IC204 μA7300PC
IC301 TA75558P-R
L101 36mH (G)
L201 36mH (G)
L110 36mH
L210 36mH (G)
Q220 2SC945(L)
Q120 2SC945(L)

Fig. 7.10.1.2 Serial Nos.: A12301001 – A12302900

Note: Diode is 1SS53, 1S953, or 1S1555 unless otherwise specified.

7.10.2. Dolby NR P.C.B. Ass'y (UK, Australia, 220V Class 2, Others & Japan)


Lch
Decoder
Rch
Lch
Encoder
Rch
R712 100K
R713 100K
R709 100K
33 Off
32
31
Enc In
M5
M6
Mon Out
Enc Out
PB EQ
M13
M14
GND
+12V
-12V
MS17
MS18
MS21
MS22
MS9
MS10
MS25
MS26
MS29
SW.SW
OV24
OV23
28 GND
27 GND
Lch
Rch
IC103
IC104
IC203
IC204
IC101
IC102
IC201
IC202
IC301
LA2730
L101 36mH (G)
L201 36mH (G)
L110 36mH (G)
L210 36mH (G)
DOLBY 2 PCB
8 7992
FK-MF1 94V 0

Fgi. 7.10.2.1 Serial No.: A12302901 –

Note: Diode is 1SS53, 1S953, or 1S1555 unless otherwise specified.

Schematic Ref. No.	Part No.	Description
	BA04645A	Dolby NR P.C.B. Ass'y (UK, Australia, 220V Class 2, Others & Japan) Serial No.: A12302901 –
	– PB Dolby NR –	
IC103,104 203,204	0B06338A	IC LA2730
Q102,108 109,110 111,202 208,209 210,211	0B01872A	Transistor 2SC945 (L)
D103,203	0B00030A	Germanium Diode 1N60P
D104,107 108,204 207,208	0B01909A	Silicon Diode 1S1555
R131,231	0B05694A	Carbon Resistor 9.1K ERD-25T J
R132,232	0B05675A	Carbon Resistor 3.9K ERD-25T J
R133,147 233,247	0B09557A	Metal Film Resistor 13K SN14K2E F
R135,141 144,149 164,167 169,170 235,241 244,249 264,267 269,270	0B05641A	Carbon Resistor 47K ERD-25T J
R136,150 236,250	0B09271A	Carbon Resistor 6.2K ERD-25T J
R137,139 152,157 237,239 252,257	0B05620A	Carbon Resistor 270K ERD-25T J
R138,238	0B05591A	Carbon Resistor 15K ERD-25T J
R140,175 240,275	0B05776A	Carbon Resistor 1M ERD-25T J
R142,242	0B05622A	Carbon Resistor 2.2K ERD-25T J
R143,243	0B01846A	Carbon Resistor 4.7K ERD-25T J
R145,245	0B09565A	Carbon Resistor 1.6K ERD-25T J
R146,246	0B01681A	Carbon Resistor 3.3K ERD-25T J
R153,253	0B09426A	Metal Film Resistor 5.36K SN14K2E F
R154,254	0B09604A	Metal Film Resistor 6.98K SN14K2E F
R166,266	0B09558A	Metal Film Resistor 4.42K SN14K2E F
R168,268	0B05784A	Carbon Resistor 560K ERD-25T J
R172,272	0B05625A	Carbon Resistor 220K ERD-25T J
R717,817	0B01857A	Carbon Resistor 1K ERD-25T J
C122,222	0B01392A	Electrolytic Capacitor 470μ 16V
C124,224	0B05659A	Mylar Capacitor 5600P 50V J
C125,135 225,235	0B09240A	PP Capacitor 0.033μ 100V G
C126,136 142,226 236,242	0B05681A	Mylar Capacitor 0.01μ 50V J
C127,137 227,237	0B01862A	Electrolytic Capacitor 22μ 16V
C128,139 228,239	0B01389A	Electrolytic Capacitor 4.7μ 16V
C129,229	0B05583A	Mylar Capacitor 0.033μ 50V J
C130,153 230,253	0B01603A	Mylar Capacitor 0.1μ 50V K

Schematic Ref. No.	Part No.	Description
C131,132 231,232	0B09567A	Electrolytic Capacitor 0.33µ 50V (LN) K
C138,238	0B09566A	Mylar Capacitor 0.13µ 50V J
C140,240	0B05796A	Mylar Capacitor 0.047µ 50V J
C141,241	0B05914A	Mylar Capacitor 0.15µ 50V J
C144,244	0B09282A	Ceramic Capacitor 100P 50V K
C167,168 267,268	0B09494A	Electrolytic Capacitor 1µ 50V (LN)
	0B08714A	IC Socket 16P (4 pcs.)
	0E00037A	Earth Lug B-5 (1 pce.)
	– Rec. Dolby NR –	
IC101,102 201,202	0B06338A	IC LA2730
Q101,103 104,105 106,107 201,203 204,205 206,207	0B01872A	Transistor 2SC945 (L)
ZD101,201	0B06315A	Zener Diode 6.8V XZ068
D101,105 106,201 205,206	0B01909A	Silicon Diode 1S1555
D102,202	0B00030A	Germanium Diode 1N60P
L101,201	0B06676A	Inductor 36mH G
R101,201	0B09201A	Metal Film Resistor 2.2K SN14K2E F
R102,202	0B09356A	Metal Film Resistor 4.7K SN14K2E F
R103,117 203,217	0B01681A	Carbon Resistor 3.3K ERD-25T J
R104,173 204,273	0B01857A	Carbon Resistor 1K ERD-25T J
R105,122 205,222	0B09557A	Metal Film Resistor 13K SN14K2E F
R106,107 113,116 124,157 159,206 207,213 216,224 257,259	0B05641A	Carbon Resistor 47K ERD-25T J
R108,125 208,225	0B09271A	Carbon Resistor 6.2K ERD-25T J
R109,111 126,127 209,211 226,227	0B05620A	Carbon Resistor 270K ERD-25T J
R110,210	0B05591A	Carbon Resistor 15K ERD-25T J
R112,212 706,708	0B05776A	Carbon Resistor 1M ERD-25T J
R114,214	0B05622A	Carbon Resistor 2.2K ERD-25T J
R115,215	0B01846A	Carbon Resistor 4.7K ERD-25T J
R119,219	0B09565A	Carbon Resistor 1.6K ERD-25T J
R121,221	0B05794A	Carbon Resistor 680 ERD-25T J
R154,254	0B05615A	Carbon Resistor 22K ERD-25T J
R156,256	0B09558A	Metal Film Resistor 4.42K SN14K2E F
R158,258	0B05784A	Carbon Resistor 560K ERD-25T J
R161,198 261,298 705,707	0B01888A	Carbon Resistor 10K ERD-25T J
R162,262	0B05743A	Carbon Resistor 27K ERD-25T J

Schematic Ref. No.	Part No.	Description
R163,263	0B05694A	Carbon Resistor 9.1K ERD-25T J
R171,271	0B05625A	Carbon Resistor 220K ERD-25T J
R701,702	0B09213A	Fail Safe Type Resistor 150 RDF-25S J
R714,814	0B01856A	Carbon Resistor 8.2K ERD-25T J
C101,201	0B09409A	PP Capacitor 1800P 100V G
C102,111 202,211	0B09240A	PP Capacitor 0.033µ 100V G
C103,112 203,212	0B05681A	Mylar Capacitor 0.01µ 50V J
C104,113 204,213	0B01862A	Electrolytic Capacitor 22µ 16V
C105,114 205,214	0B01389A	Electrolytic Capacitor 4.7µ 16V
C106,206	0B05583A	Mylar Capacitor 0.033µ 50V J
C107,151 207,251	0B01603A	Mylar Capacitor 0.1µ 50V K
C108,109 208,209	0B09567A	Electrolytic Capacitor 0.33µ 50V (LN) K
C110,210	0B09594A	Mylar Capacitor 0.03µ 50V J
C115,215	0B09566A	Mylar Capacitor 0.13µ 50V J
C116,216	0B05796A	Mylar Capacitor 0.047µ 50V J
C117,217	0B05914A	Mylar Capacitor 0.15µ 50V J
C119,219 503,504	0B09223A	Electrolytic Capacitor 1µ 50V (LN)
C120,220	0B01392A	Electrolytic Capacitor 470µ 16V
C148,248	0B09163A	Electrolytic Capacitor 10µ 16V (BP)
C703,803	0B09783A	PP Capacitor 820P 100V J
	0B08714A	IC Socket 16P (4 pcs.)
	– Line Amp. –	
IC301	0B06287A	IC TA75558P-R
Q120,220	0B01872A	Transistor 2SC945 (L)
L110,210	0B06676A	Inductor 36mH G
R180,184 280,284	0B01857A	Carbon Resistor 1K ERD-25T J
R181,182 281,282	0B05625A	Carbon Resistor 220K ERD-25T J
R183,283	0B09582A	Metal Film Resistor 43.2K SN14K2E F
R185,285	0B09507A	Metal Film Resistor 3.57K SN14K2E F
R186,286 710	0B01888A	Carbon Resistor 10K ERD-25T J
R387,709 712,713	0B01889A	Carbon Resistor 100K ERD-25T J
R388	0B05784A	Carbon Resistor 560K ERD-25T J
R711	0B05508A	Carbon Resistor 56K ERD-25T J
R715,815	0B01856A	Carbon Resistor 8.2K ERD-25T J
C180,280	0B09223A	Electrolytic Capacitor 1µ 50V (LN)
C181,183 281,283 301,702	0B01412A	Electrolytic Capacitor 10µ 16V
C182,282	0B09409A	PP Capacitor 1800P 100V G
	– Miscellaneous –	
	0B07992C	Dolby NR P.C.B.

Schematic Ref. No.	Part No.	Description
	BA04645A	**Dolby NR P.C.B. Ass'y (UK, Australia, 220V Class 2, Others & Japan)** Serial Nos.: A12301001 – A12302900
	– PB Dolby NR –	
IC103,104 203,204	0B06338A	IC LA2730
Q102,108 109,110 111,202 208,209 210,211	0B01872A	Transistor 2SC945 (L)
D103,203	0B00030A	Germanium Diode 1N60P
D104,107 108,204 207,208	0B01909A	Silicon Diode 1S1555
R131,231	0B05694A	Carbon Resistor 9.1K ERD-25T J
R132,232	0B05675A	Carbon Resistor 3.9K ERD-25T J
R133,147 233,247	0B09557A	Metal Film Resistor 13K SN14K2E F
R135,141 144,149 164,167 169,170 235,241 244,249 264,267 269,270	0B05641A	Carbon Resistor 47K ERD-25T J
R136,150 236,250	0B09271A	Carbon Resistor 6.2K ERD-25T J
R137,139 152,157 237,239 252,257	0B05620A	Carbon Resistor 270K ERD-25T J
R138,238	0B05591A	Carbon Resistor 15K ERD-25T J
R140,175 240,275	0B05776A	Carbon Resistor 1M ERD-25T J
R142,242	0B05622A	Carbon Resistor 2.2K ERD-25T J
R143,243	0B01846A	Carbon Resistor 4.7K ERD-25T J
R145,245	0B09565A	Carbon Resistor 1.6K ERD-25T J
R146,246	0B01681A	Carbon Resistor 3.3K ERD-25T J
R153,253	0B09426A	Metal Film Resistor 5.36K SN14K2E F
R154,254	0B09604A	Metal Film Resistor 6.98K SN14K2E F
R166,266	0B09558A	Metal Film Resistor 4.42K SN14K2E F
R168,268	0B05784A	Carbon Resistor 560K ERD-25T J
R172,272	0B05625A	Carbon Resistor 220K ERD-25T J
R717,817	0B01857A	Carbon Resistor 1K ERD-25T J
C122,222	0B01392A	Electrolytic Capacitor 470µ 16V
C124,224	0B05659A	Mylar Capacitor 5600P 50V J
C125,135 225,235	0B09240A	PP Capacitor 0.033µ 100V G
C126,136 142,226 236,242	0B05681A	Mylar Capacitor 0.01µ 50V J
C127,137 227,237	0B01862A	Electrolytic Capacitor 22µ 16V
C128,139 228,239	0B01389A	Electrolytic Capacitor 4.7µ 16V
C129,229	0B05583A	Mylar Capacitor 0.033µ 50V J
C130,153 230,253	0B01603A	Mylar Capacitor 0.1µ 50V K

Schematic Ref. No.	Part No.	Description
C131,132 231,232	0B09567A	Electrolytic Capacitor 0.33µ 50V (LN) K
C138,238	0B09566A	Mylar Capacitor 0.13µ 50V J
C140,240	0B05796A	Mylar Capacitor 0.047µ 50V J
C141,241	0B05914A	Mylar Capacitor 0.15µ 50V J
C144,244	0B09282A	Ceramic Capacitor 100P 50V K
C167,168 267,268	0B09494A	Electrolytic Capacitor 1µ 50V (LN)
	0B08714A	IC Socket 16P (4 pcs.)
	0E00037A	Earth Lug B-5 (1 pce.)
	– Rec. Dolby NR –	
IC101,102 201,202	0B06338A	IC LA2730
Q101,103 104,105 106,107 201,203 204,205 206,207	0B01872A	Transistor 2SC945 (L)
ZD101,201	0B06315A	Zener Diode 6.8V XZ068
D101,105 106,201 205,206	0B01909A	Silicon Diode 1S1555
D102,202	0B00030A	Germanium Diode 1N60P
L101,201	0B06676A	Inductor 36mH G
R101,201	0B09201A	Metal Film Resistor 2.2K SN14K2E F
R102,202	0B09356A	Metal Film Resistor 4.7K SN14K2E F
R103,117 203,217	0B01681A	Carbon Resistor 3.3K ERD-25T J
R104,173 204,273	0B01857A	Carbon Resistor 1K ERD-25T J
R105,122 205,222	0B09557A	Metal Film Resistor 13K SN14K2E F
R106,107 113,116 124,157 159,206 207,213 216,224 257,259	0B05641A	Carbon Resistor 47K ERD-25T J
R108,125 208,225	0B09271A	Carbon Resistor 6.2K ERD-25T J
R109,111 126,127 209,211 226,227	0B05620A	Carbon Resistor 270K ERD-25T J
R110,210	0B05591A	Carbon Resistor 15K ERD-25T J
R112,212 706,708	0B05776A	Carbon Resistor 1M ERD-25T J
R114,214	0B05622A	Carbon Resistor 2.2K ERD-25T J
R115,215	0B01846A	Carbon Resistor 4.7K ERD-25T J
R119,219	0B09565A	Carbon Resistor 1.6K ERD-25T J
R121,221	0B05794A	Carbon Resistor 680 ERD-25T J
R154,254	0B05615A	Carbon Resistor 22K ERD-25T J
R156,256	0B09558A	Metal Film Resistor 4.42K SN14K2E F
R158,258	0B05784A	Carbon Resistor 560K ERD-25T J
R161,198 261,298 705,707	0B01888A	Carbon Resistor 10K ERD-25T J
R162,262	0B05743A	Carbon Resistor 27K ERD-25T J

Schematic Ref. No.	Part No.	Description
R163,263	0B05694A	Carbon Resistor 9.1K ERD-25T J
R171,271	0B05625A	Carbon Resistor 220K ERD-25T J
R701,702	0B09213A	Fail Safe Type Resistor 150 RDF-25S J
R714,814	0B01856A	Carbon Resistor 8.2K ERD-25T J
C101,201	0B09409A	PP Capacitor 1800P 100V G
C102,111 202,211	0B09240A	PP Capacitor 0.033µ 100V G
C103,112 203,212	0B05681A	Mylar Capacitor 0.01µ 50V J
C104,113 204,213	0B01862A	Electrolytic Capacitor 22µ 16V
C105,114 205,214	0B01389A	Electrolytic Capacitor 4.7µ 16V
C106,206	0B05583A	Mylar Capacitor 0.033µ 50V J
C107,151 207,251	0B01603A	Mylar Capacitor 0.1µ 50V K
C108,109 208,209	0B09567A	Electrolytic Capacitor 0.33µ 50V (LN) K
C110,210	0B09594A	Mylar Capacitor 0.03µ 50V J
C115,215	0B09566A	Mylar Capacitor 0.13µ 50V J
C116,216	0B05796A	Mylar Capacitor 0.047µ 50V J
C117,217	0B05914A	Mylar Capacitor 0.15µ 50V J
C119,219 503,504	0B09223A	Electrolytic Capacitor 1µ 50V (LN)
C120,220	0B01392A	Electrolytic Capacitor 470µ 16V
C148,248	0B09163A	Electrolytic Capacitor 10µ 16V (BP)
C703,803	0B09783A	PP Capacitor 820P 100V J
	0B08714A	IC Socket 16P (4 pcs.)
	— Line Amp. —	
IC301	0B06287A	IC TA75558P-R
Q120,220	0B01872A	Transistor 2SC945 (L)
L110,210	0B06676A	Inductor 36mH G
R180,184 280,284	0B01857A	Carbon Resistor 1K ERD-25T J
R181,182 281,282	0B05625A	Carbon Resistor 220K ERD-25T J
R183,283	0B09582A	Metal Film Resistor 43.2K SN14K2E F
R185,285	0B09507A	Metal Film Resistor 3.57K SN14K2E F
R186,286 710	0B01888A	Carbon Resistor 10K ERD-25T J
R387,709 712,713	0B01889A	Carbon Resistor 100K ERD-25T J
R388	0B05784A	Carbon Resistor 560K ERD-25T J
R711	0B05508A	Carbon Resistor 56K ERD-25T J
R715,815	0B01856A	Carbon Resistor 8.2K ERD-25T J
C180,280	0B09223A	Electrolytic Capacitor 1µ 50V (LN)
C181,183 281,283 301,702	0B01412A	Electrolytic Capacitor 10µ 16V
C182,282	0B09409A	PP Capacitor 1800P 100V G
	— Miscellaneous —	
	0B07992A	Dolby NR P.C.B.

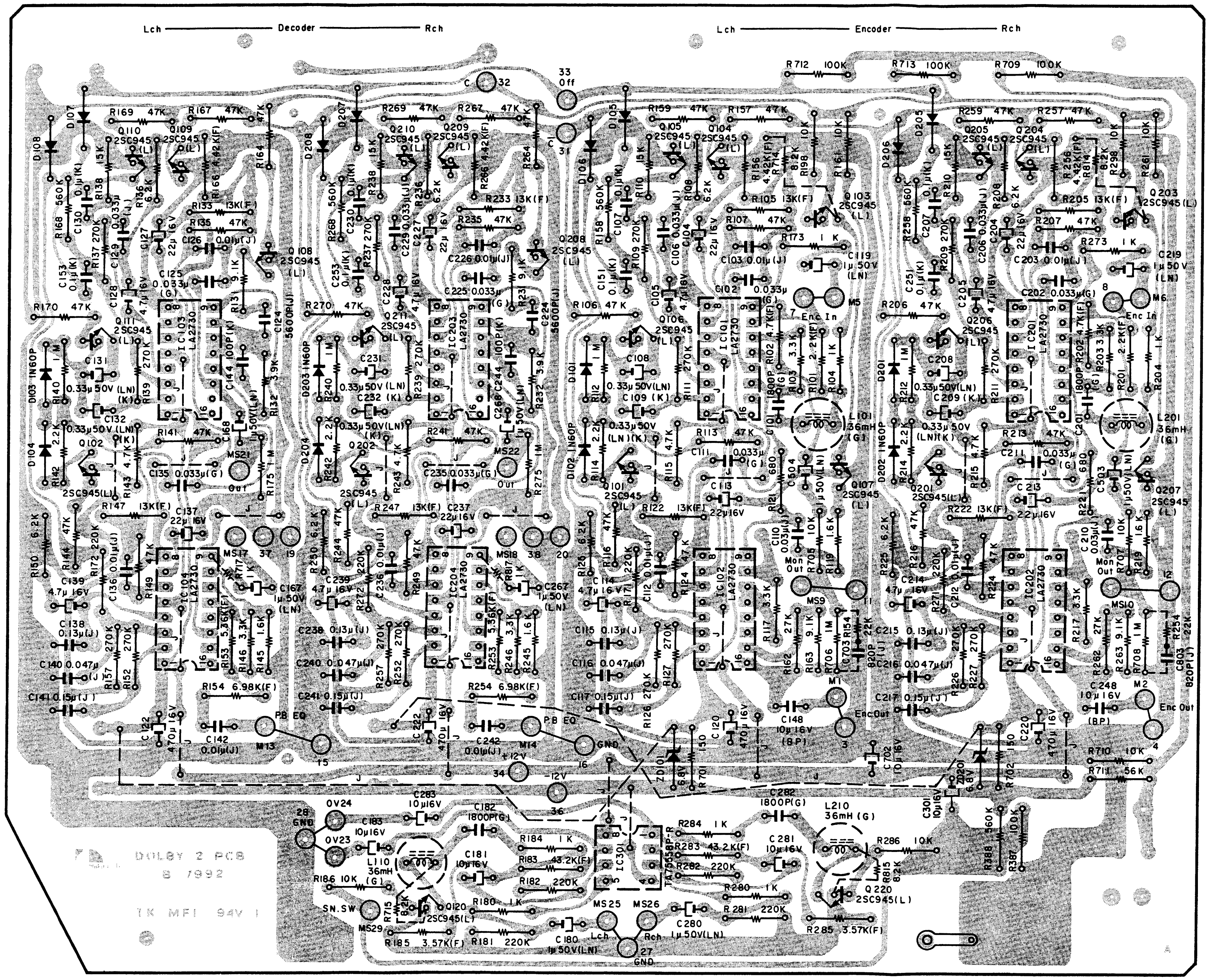


Fig. 7.10.2.2 Serial Nos.: A12301001 – A12302900

Note: Diode is 1SS53, 1S953, or 1S1555 unless otherwise specified.

7.11. Logic & Power P.C.B. Ass'y

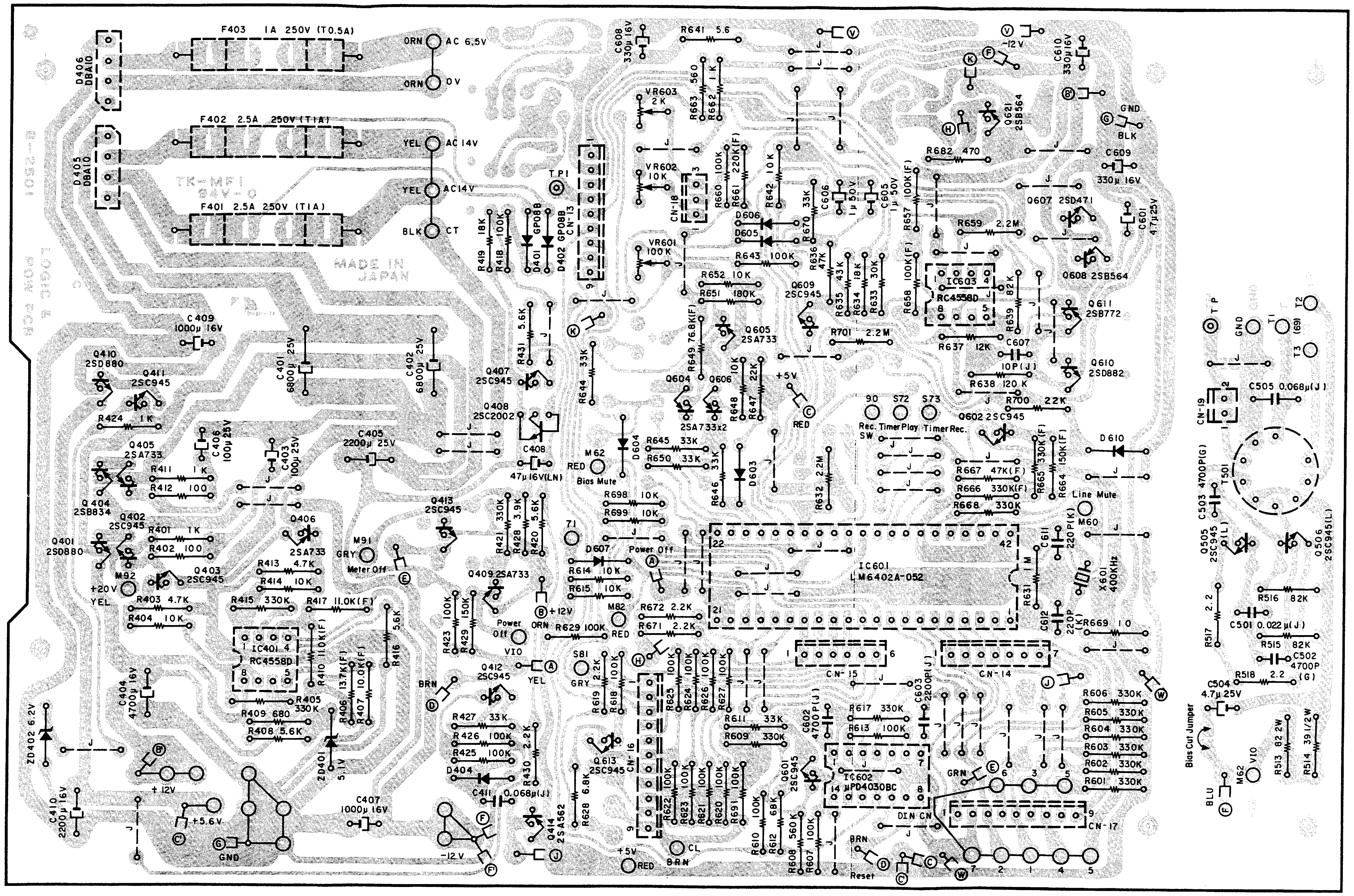

F403 1A 250V (T0.5A)
F402 2.5A 250V (T1A)
F401 2.5A 250V (T1A)
D406 DBA10
D405 DBA10
ORN AC 6.5V
ORN 0V
YEL AC 14V
YEL AC14V
BLK CT
TK-MF1 94V-0
MADE IN JAPAN
C409 1000µ 16V
C401 6800µ 25V
C402 6800µ 25V
C405 2200µ 25V
C406 100µ 25V
C403 100µ 25V
C404 4700µ 16V
C410 2200µ 16V
C407 1000µ 16V
C408 47µ 16V(LN)
C411 0.068µ(J)
Q410 2SD880
Q411 2SC945
Q405 2SA733
Q404 2SB834
Q402 2SC945
Q401 2SD880
Q403 2SC945
Q406 2SA733
Q407 2SC945
Q408 2SC2002
Q413 2SC945
Q409 2SA733
Q412 2SC945
Q414 2SA562
ZD402 6.2V
ZD401 5.1V
IC401 RC4558D
IC601 LM6402A-052
IC602 µPD4030BC
IC603 RC4558D
T501
X601 400KHz
CN-13
CN-14
CN-15
CN-16
CN-17
CN-18
CN-19
DIN CN
TP1
VR601 100K
VR602 10K
VR603 2K
+20V YEL
+12V
+5.6V
-12V
+5V
GND
M91 Meter Off
M92
M82 RED
M62 RED Bias Mute
Power Off
Line Mute
Rec. Timer Play Timer Rec. SW
Reset
Bias Cut Jumper
BLU
BRN
GRN
GRY
VIO

Fig. 7.11.1 Serial No.: A12302901 –

Note: Diode is 1SS53, 1S953, or 1S1555 unless otherwise specified.

Schematic Ref. No.	Part No.	Description
	BA04641A	Logic & Power P.C.B. Ass'y (U.S.A., Canada & Others)
	BA04582A	Logic & Power P.C.B. Ass'y (Japan)
	BA04581A	Logic & Power P.C.B. Ass'y (UK, Australia & 220V Class 2) Serial No.: A12302901 –
	– Bias Osc. –	
Q505,506	0B01872A	Transistor 2SC945 (L)
T501	0B06613A	Osc. Coil
R513	0B09295A	Fail Safe Type Resistor 82 RSF-2B J
R514	0B09296A	Fail Safe Type Resistor 39 RSF-1/2B J
R515,516	0B05668A	Carbon Resistor 82K ERD-25T J
R517,518	0B09212A	Fail Safe Type Resistor 2.2RDF-25S J
C501	0B09405A	PP Capacitor 0.022µ 100V J
C502,503	0B09191A	PP Capacitor 4700P 100V G
C504	0B01402A	Electrolytic Capacitor 4.7µ 25V
C505	0B09254A	PP Capacitor 0.068µ 100V J
CN19	0B08656A	2P-T Post
	0J04450A	Osc. Coil Cap (1 pce.)
	– Power Supply –	
IC401	0B06124B	IC RC4558D
Q402,403 407,411 412,413	0B06100A	Transistor 2SC945 (A)
Q405,406 409	0B06013A	Transistor 2SA733
Q408	0B06322A	Transistor 2SC2002
Q414	0B01426A	Transistor 2SA562
ZD401	0B06058A	Zener Diode 5.1V YZ051
ZD402	0B06314A	Zener Diode 6.2V YZ062
D401,402	0B06109A	Silicon Diode GP08B
D404	0B01909A	Silicon Diode 1S1555
D405,406	0B06282A	Diode Bridge DBA10
R401,411 424	0B01857A	Carbon Resistor 1K ERD-25T J
R402,412	0B01679A	Carbon Resistor 100 ERD-25T J
R403,413	0B01846A	Carbon Resistor 4.7K ERD-25T J
R404,414	0B01888A	Carbon Resistor 10K ERD-25T J
R405,415 421	0B05627A	Carbon Resistor 330K ERD-25T J
R406	0B09523A	Metal Film Resistor 13.7K SN14K2E F
R407	0B09203A	Metal Film Resistor 10K SN14K2E F
R408,416 420,431	0B01887A	Carbon Resistor 5.6K ERD-25T J
R409	0B05794A	Carbon Resistor 680 ERD-25T J
R410,417	0B09128A	Metal Film Resistor 11K SN14K2E F
R418,423 425,426	0B01889A	Carbon Resistor 100K ERD-25T J
R419	0B05560A	Carbon Resistor 18K ERD-25T J
R427	0B05509A	Carbon Resistor 33K ERD-25T J
R428	0B05675A	Carbon Resistor 3.9K ERD-25T J
R429	0B05626A	Carbon Resistor 150K ERD-25T J
R430	0B05622A	Carbon Resistor 2.2K ERD-25T J
C401,402	0B09374A	Electrolytic Capacitor 6800µ 25V
C403,406	0B01272A	Electrolytic Capacitor 100µ 25V
C404	0B09377A	Electrolytic Capacitor 4700µ 16V
C405	0B05654A	Electrolytic Capacitor 2200µ 25V
C407,409	0B01397A	Electrolytic Capacitor 1000µ 16V
C408	0B09218A	Electrolytic Capacitor 47µ 16V (LN)
C410	0B01406A	Electrolytic Capacitor 2200µ 16V

Schematic Ref. No.	Part No.	Description
C411	0B05682A	Mylar Capacitor 0.068μ 50V J
	0B08515A	Insu-Lock (2 pcs.)
	— Logic —	
IC601	0B06324A	IC LM6402A-052
IC602	0B06317A	IC μPD4030BC
IC603	0B06124B	IC RC4558D
Q601,602 609,613	0B06100A	Transistor 2SC945 (A)
Q604,605 606	0B06013A	Transistor 2SA733
Q607	0B06066A	Transistor 2SD471
Q608,621	0B06069A	Transistor 2SB564
Q610	0B06316A	Transistor 2SD882
Q611	0B06303A	Transistor 2SB772
D603,604 605,606 607,610	0B01909A	Silicon Diode 1S1555
X601	0B08908A	Crystal 400kHz 4BR400BT
VR601	0B07257A	Semi-fixed Volume 100K
VR602	0B07256A	Semi-fixed Volume 10K
VR603	0B07329A	Semi-fixed Volume 2K
R601,602 603,604 605,606 609,617 668	0B05627A	Carbon Resistor 330K ERD-25T J
R607,610 613,618 620-627 629,643 660,691	0B01889A	Carbon Resistor 100K ERD-25T J (16 pcs.)
R608	0B05784A	Carbon Resistor 560K ERD-25T J
R611,644 645,646 650,670	0B05509A	Carbon Resistor 33K ERD-25T J
R612	0B05692A	Carbon Resistor 68K ERD-25T J
R614,615 642,648 652,698 699	0B01888A	Carbon Resistor 10K ERD-25T J
R619,671 672	0B05622A	Carbon Resistor 2.2K ERD-25T J
R628	0B01682A	Carbon Resistor 6.8K ERD-25T J
R631	0B05776A	Carbon Resistor 1M ERD-25T J
R632,659 701	0B05671A	Carbon Resistor 2.2M ERD-25T J
R633	0B09075A	Carbon Resistor 30K ERD-25T J
R634	0B05560A	Carbon Resistor 18K ERD-25T J
R635	0B09750A	Carbon Resistor 43K ERD-25T J
R636	0B05641A	Carbon Resistor 47K ERD-25T J
R637	0B09263A	Carbon Resistor 12K ERD-25T J
R638	0B05621A	Carbon Resistor 120K ERD-25T J
R639	0B05668A	Carbon Resistor 82K ERD-25T J
R641	0B09217A	Fail Safe Type Resistor 5.6 RDF-25S J
R647,700	0B05615A	Carbon Resistor 22K ERD-25T J
R649	0B09751A	Metal Film Resistor 76.8K SN14K2E F
R651	0B05640A	Carbon Resistor 180K ERD-25T J
R657,658	0B09269A	Metal Film Resistor 100K SN14K2E F
R661	0B09472A	Metal Film Resistor 220K SN14K2E F
R662	0B01857A	Carbon Resistor 1K ERD-25T J
R663	0B05575A	Carbon Resistor 560 ERD-25T J
R664	0B09300A	Metal Film Resistor 150K SN14K2E F

Schematic Ref. No.	Part No.	Description
R665,666	0B09756A	Metal Film Resistor 330K SN14K2E F
R667	0B09451A	Metal Film Resistor 47K SN14K2E F
R669	0B09216A	Fail Safe Type Resistor 10 RDF-25S J
R682	0B05576A	Carbon Resistor 470 ERD-25T J
C601	0B01402A	Electrolytic Capacitor 4.7μ 25V
C602	0B05652A	Mylar Capacitor 4700P 50V J
C603	0B01802A	Mylar Capacitor 2200P 50V J
C605,606	0B01405A	Electrolytic Capacitor 1μ 50V
C607	0B09277A	Ceramic Capacitor 10P 50V J
C608,609 610	0B01502A	Electrolytic Capacitor 330μ 16V
C611,612	0B09283A	Ceramic Capacitor 220P 50V K
CN13,16 17	0B08645A	9P-T Post
CN14	0B08643A	7P-T Post
CN15	0B08642A	6P-T Post
CN18	0B08653A	3P-T Post
	0B08964A	Transistor Mica TO-126 (2 pcs.)
	0E00507A	Nut Hex. M3 (2 pcs.)
	0E00624A	Screw M3x10 Philips Pan Head (2A) (1 pce.)
	0J04485A	Heat Sink B (1 pce.)
	0M04222A	Label CN-15 (1 pce.)
	0M04223A	Label CN-16 (1 pce.)
	0M04224A	Label CN-17 (1 pce.)
	0M04230A	Label CN-13 (1 pce.)
	0M04231A	Label CN-14 (1 pce.)
	— Miscellaneous —	
	0B02501C	Logic & Power P.C.B.
F401,402	0B08962A	Fuse 2.5A 250V (U.S.A., Canada & Others)
F401,402	0B08961A	Fuse 2.5A 250V (Japan)
F401,402	0B08347U	Fuse T1A 250V (UK, Australia & 220V Class 2)
F403	0B08374A	Fuse 1A 250V (U.S.A., Canada & Others)
F403	0B08686A	Fuse 1A 250V (Japan)
F403	0B08960A	Fuse T500mA 250V (UK, Australia & 220V Class 2)
	0B08349A	Fuse Clip (UK, Australia & 220V Class 2) (6 pcs.)
	0E00037A	Earth Lug B-5 (1 pce.)
*	0E00857A	BT Screw M3x6 Philips Binding Head (2 pcs.)
	0M03782A	Fuse Label 1A 250V (U.S.A., Canada, Japan & Others) (1 pce.)
	0M04096C	Fuse Label T500mA (UK, Australia & 220V Class 2) (1 pce.)
	0M04191A	Fuse Label T1A 250V (UK, Australia & 220V Class 2) (2 pcs.)
Q401,410	0B06255A	Transistor 2SD880 (Y)
Q404	0B06256A	Transistor 2SB834 (Y, GR)
	0B08601A	Transistor Mica TO-220 (3 pcs.)
	0B08602A	Transistor Bushing TO-220 (3 pcs.)
	0E00507A	Nut Hex. M3 (3 pcs.)
	0E00608A	Screw M3x10 Philips Pan Head (3A) (3 pcs.)
	0J04526A	Heat Sink (1 pce.)

*: Depends on the versions.

Schematic Ref. No.	Part No.	Description
	BA04641A	**Logic & Power P.C.B. Ass'y (U.S.A., Canada & Others)**
	BA04582A	**Logic & Power P.C.B. Ass'y (Japan)**
	BA04581A	**Logic & Power P.C.B. Ass'y (UK, Australia & 220V Class 2)**
		Serial Nos.: A12301001 – A12302900
	– Bias Osc. –	
Q505,506	0B01872A	Transistor 2SC945 (L)
T501	0B06613A	Osc. Coil
R513	0B09295A	Fail Safe Type Resistor 82 RSF-2B J
R514	0B09296A	Fail Safe Type Resistor 39 RSF-1/2B J
R515,516	0B05668A	Carbon Resistor 82K ERD-25T J
R517,518	0B09212A	Fail Safe Type Resistor 2.2 RDF-25S J
C501	0B09405A	PP Capacitor 0.022µ 100V J
C502,503	0B09191A	PP Capacitor 4700P 100V G
C504	0B01402A	Electrolytic Capacitor 4.7µ 25V
C505	0B09254A	PP Capacitor 0.068µ 100V J
CN19	0B08656A	2P-T Post
	0J04450A	Osc. Coil Cap (1 pce.)
	– Power Supply –	
IC401	0B06124B	IC RC4558D
Q402,403 407,411 412,413	0B06100A	Transistor 2SC945 (A)
Q405,406 409	0B06013A	Transistor 2SA733
Q408	0B06322A	Transistor 2SC2002
Q414	0B01426A	Transistor 2SA562
ZD401	0B06058A	Zener Diode 5.1V YZ051
ZD402	0B06314A	Zener Diode 6.2V YZ062
D401,402	0B06109A	Silicon Diode GP08B
D404	0B01909A	Silicon Diode 1S1555
D405,406	0B06282A	Diode Bridge DBA10
R401,411 424	0B01857A	Carbon Resistor 1K ERD-25T J
R402,412	0B01679A	Carbon Resistor 100 ERD-25T J
R403,413	0B01846A	Carbon Resistor 4.7K ERD-25T J
R404,414	0B01888A	Carbon Resistor 10K ERD-25T J
R405,415 421	0B05627A	Carbon Resistor 330K ERD-25T J
R406	0B09523A	Metal Film Resistor 13.7K SN14K2E F
R407	0B09203A	Metal Film Resistor 10K SN14K2E F
R408,416 420,431	0B01887A	Carbon Resistor 5.6K ERD-25T J
R409	0B05794A	Carbon Resistor 680 ERD-25T J
R410,417	0B09128A	Metal Film Resistor 11K SN14K2E F
R418,423 425,426	0B01889A	Carbon Resistor 100K ERD-25T J
R419	0B05560A	Carbon Resistor 18K ERD-25T J
R427	0B05509A	Carbon Resistor 33K ERD-25T J
R428	0B05675A	Carbon Resistor 3.9K ERD-25T J
R429	0B05626A	Carbon Resistor 150K ERD-25T J
R430	0B05622A	Carbon Resistor 2.2K ERD-25T J
C401,402	0B09374A	Electrolytic Capacitor 6800µ 25V
C403,406	0B01272A	Electrolytic Capacitor 100µ 25V
C404	0B09377A	Electrolytic Capacitor 4700µ 16V
C405	0B05654A	Electrolytic Capacitor 2200µ 25V
C407,409	0B01397A	Electrolytic Capacitor 1000µ 16V
C408	0B09251A	Electrolytic Capacitor 33µ 16V
C410	0B01406A	Electrolytic Capacitor 2200µ 16V

Schematic Ref. No.	Part No.	Description
C411	0B05682A	Mylar Capacitor 0.068µ 50V J
	0B08515A	Insu-Lock (2 pcs.)
	– Logic –	
IC601	0B06324A	IC LM6402A-052
IC602	0B06317A	IC µPD4030BC
IC603	0B06124B	IC RC4558D
Q601,602 609,613	0B06100A	Transistor 2SC945 (A)
Q604,605 606	0B06013A	Transistor 2SA733
Q607	0B06066A	Transistor 2SD471
Q608,621	0B06069A	Transistor 2SB564
Q610	0B06316A	Transistor 2SD882
Q611	0B06303A	Transistor 2SB772
D603,604 605,606 607,610	0B01909A	Silicon Diode 1S1555
X601	0B08908A	Crystal 400kHz 4BR400BT
VR601	0B07257A	Semi-fixed Volume 100K
VR602	0B07256A	Semi-fixed Volume 10K
VR603	0B07329A	Semi-fixed Volume 2K
R601,602 603,604 605,606 609,617 668	0B05627A	Carbon Resistor 330K ERD-25T J
R607,610 613,618 620-627 629,643 660,691	0B01889A	Carbon Resistor 100K ERD-25T J (16 pcs.)
R608	0B05784A	Carbon Resistor 560K ERD-25T J
R611,644 645,646 650,670	0B05509A	Carbon Resistor 33K ERD-25T J
R612	0B05692A	Carbon Resistor 68K ERD-25T J
R614,615 642,648 652,698 699	0B01888A	Carbon Resistor 10K ERD-25T J
R619,671 672	0B05622A	Carbon Resistor 2.2K ERD-25T J
R628	0B01682A	Carbon Resistor 6.8K ERD-25T J
R631	0B05776A	Carbon Resistor 1M ERD-25T J
R632,659 701	0B05671A	Carbon Resistor 2.2M ERD-25T J
R633	0B09075A	Carbon Resistor 30K ERD-25T J
R634	0B05560A	Carbon Resistor 18K ERD-25T J
R635	0B09750A	Carbon Resistor 43K ERD-25T J
R636	0B05641A	Carbon Resistor 47K ERD-25T J
R637	0B09263A	Carbon Resistor 12K ERD-25T J
R638	0B05621A	Carbon Resistor 120K ERD-25T J
R639	0B05668A	Carbon Resistor 82K ERD-25T J
R641	0B09217A	Fail Safe Type Resistor 5.6 RDF-25S J
R647,700	0B05615A	Carbon Resistor 22K ERD-25T J
R649	0B09751A	Metal Film Resistor 76.8K SN14K2E F
R651	0B05640A	Carbon Resistor 180K ERD-25T J
R657,658	0B09269A	Metal Film Resistor 100K SN14K2E F
R661	0B09472A	Metal Film Resistor 220K SN14K2E F
R662	0B01857A	Carbon Resistor 1K ERD-25T J
R663	0B05575A	Carbon Resistor 560 ERD-25T J
R664	0B09300A	Metal Film Resistor 150K SN14K2E F

Schematic Ref. No.	Part No.	Description
R665,666	0B09756A	Metal Film Resistor 330K SN14K2E F
R667	0B09451A	Metal Film Resistor 47K SN14K2E F
R669	0B09216A	Fail Safe Type Resistor 10 RDF-25S J
R682	0B05576A	Carbon Resistor 470 ERD-25T J
C601	0B01402A	Electrolytic Capacitor 4.7μ 25V
C602	0B05652A	Mylar Capacitor 4700P 50V J
C603	0B01802A	Mylar Capacitor 2200P 50V J
C605,606	0B01405A	Electrolytic Capacitor 1μ 50V
C607	0B09277A	Ceramic Capacitor 10P 50V J
C608,609 610	0B01502A	Electrolytic Capacitor 330μ 16V
C611,612	0B09283A	Ceramic Capacitor 220P 50V K
CN13,16 17	0B08645A	9P-T Post
CN14	0B08643A	7P-T Post
CN15	0B08642A	6P-T Post
CN18	0B08653A	3P-T Post
	0B08964A	Transistor Mica TO-126 (2 pcs.)
	0E00507A	Nut Hex. M3 (2 pcs.)
	0E00624A	Screw M3x10 Philips Pan Head (2A) (1 pce.)
	0J04485A	Heat Sink B (1 pce.)
	0M04222A	Label CN-15 (1 pce.)
	0M04223A	Label CN-16 (1 pce.)
	0M04224A	Label CN-17 (1 pce.)
	0M04230A	Label CN-13 (1 pce.)
	0M04231A	Label CN-14 (1 pce.)
	– Miscellaneous –	
	0B02501A	Logic & Power P.C.B.
F401,402	0B08962A	Fuse 2.5A 250V (U.S.A., Canada & Others)
F401,402	0B08961A	Fuse 2.5A 250V (Japan)
F401,402	0B08347U	Fuse T1A 250V (UK, Australia & 220V Class 2)
F403	0B08374A	Fuse 1A 250V (U.S.A., Canada & Others)
F403	0B08686A	Fuse 1A 250V (Japan)
F403	0B08960A	Fuse T500mA 250V (UK, Australia & 220V Class 2)
	0B08349A	Fuse Clip (UK, Australia & 220V Class 2) (6 pcs.)
	0E00037A	Earth Lug B-5 (1 pce.)
*	0E00857A	BT Screw M3x6 Philips Binding Head (2 pcs.)
	0M03782A	Fuse Label 1A 250V (U.S.A., Canada, Japan & Others) (1 pce.)
	0M04096C	Fuse Label T500mA (UK, Australia & 220V Class 2) (1 pce.)
	0M04191A	Fuse Label T1A 250V (UK, Australia & 220V Class 2) (2 pcs.)
Q401,410	0B06255A	Transistor 2SD880 (Y)
Q404	0B06256A	Transistor 2SB834 (Y, GR)
	0B08601A	Transistor Mica TO-220 (3 pcs.)
	0B08602A	Transistor Bushing TO-220 (3 pcs.)
	0E00507A	Nut Hex. M3 (3 pcs.)
	0E00608A	Screw M3x10 Philips Pan Head (3A) (3 pcs.)
	0J04526A	Heat Sink (1 pce.)
		*: Depends on the versions.

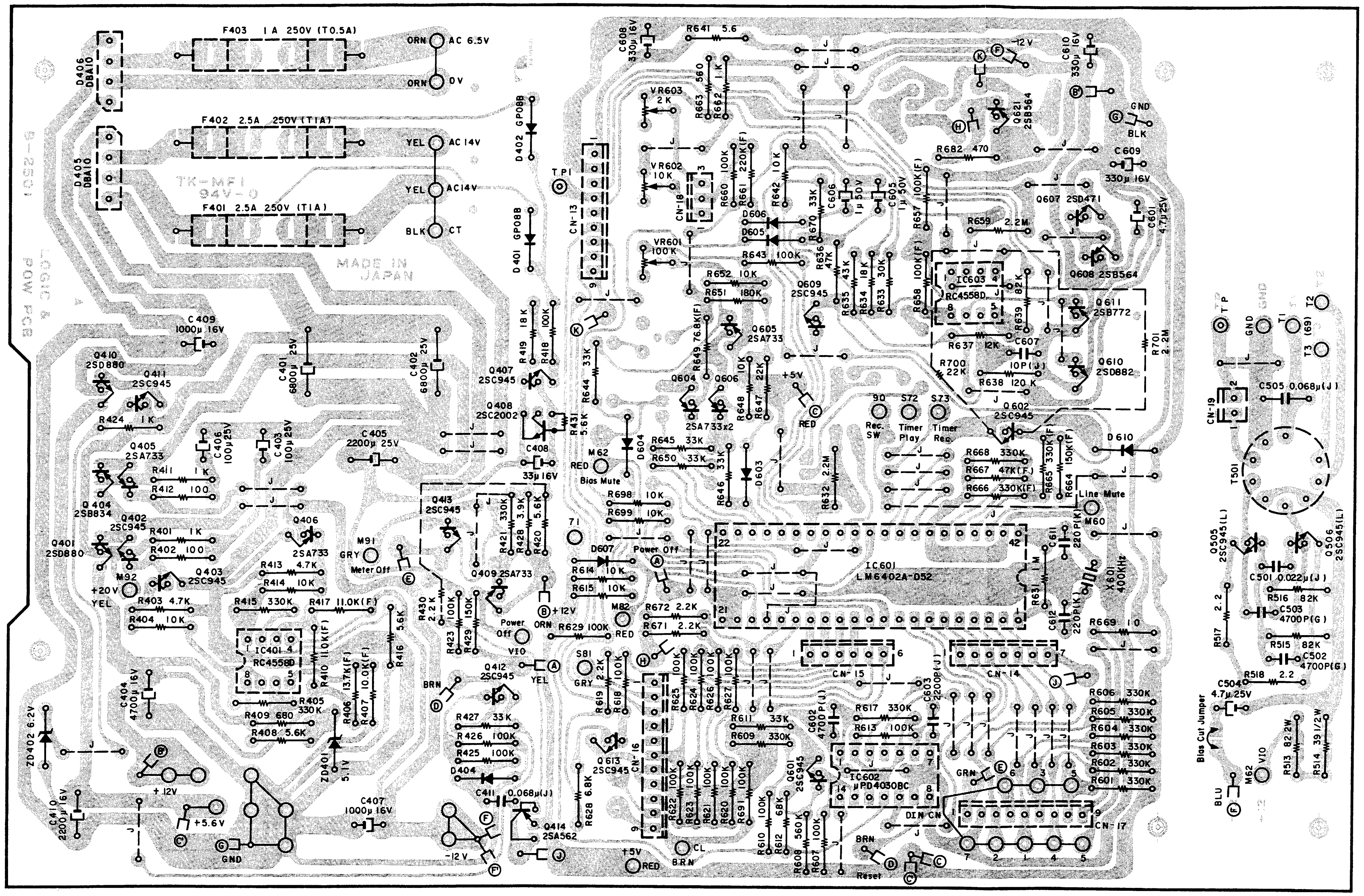

F403 1A 250V (T0.5A)
F402 2.5A 250V (T1A)
F401 2.5A 250V (T1A)
ORN AC 6.5V
ORN 0V
YEL AC 14V
YEL AC14V
BLK CT
D406 DBA10
D405 DBA10
TK-MF1 94V-0
MADE IN JAPAN
LOGIC & POW PCB
B-2501
C409 1000μ 16V
Q410 2SD880
Q411 2SC945
C401 6800μ 25V
C402 6800μ 25V
Q405 2SA733
Q404 2SB834
Q402 2SC945
Q401 2SD880
Q403 2SC945
Q406 2SA733
Q407 2SC945
Q408 2SC2002
Q409 2SA733
Q412 2SC945
Q413 2SC945
Q414 2SA562
IC401 RC4558D
C404 4700μ 16V
C405 2200μ 25V
C407 1000μ 16V
C410 2200μ 16V
ZD402 6.2V
ZD401 5.1V
D401 GP08B
D402 GP08B
M91 GRY Meter Off
M92 +20V YEL
+12V
+5.6V
-12V
GND
TP1
CN-13
CN-14
CN-15
CN-16
CN-17
CN-18
CN-19
IC601 LM6402A-D52
IC602 μPD4030BC
IC603 RC4558D
X601 400KHz
Q602 2SC945
Q604 Q606 2SA733x2
Q605 2SA733
Q607 2SD471
Q608 2SB564
Q609 2SC945
Q610 2SD882
Q611 2SB772
Q613 2SC945
Q621 2SB564
Q505 2SC945(L)
Q506 2SC945(L)
VR601 100K
VR602 10K
VR603 2K
S71 S72 S73
Rec. SW
Timer Play
Timer Rec.
Bias Mute
Power Off
Line Mute
Bias Cut Jumper
DIN CN
Reset
T501
C505 0.068μ(J)
C501 0.022μ(J)
C502 4700P(G)
C503 4700P(G)
C504 4.7μ 25V
R701 2.2M
GND BLK
330μ 16V

Fig. 7.11.2 Serial Nos.: A12301001 – A12302900

Note: Diode is 1SS53, 1S953, or 1S1555 unless otherwise specified.

7.11. Main P.C.B. Ass'y

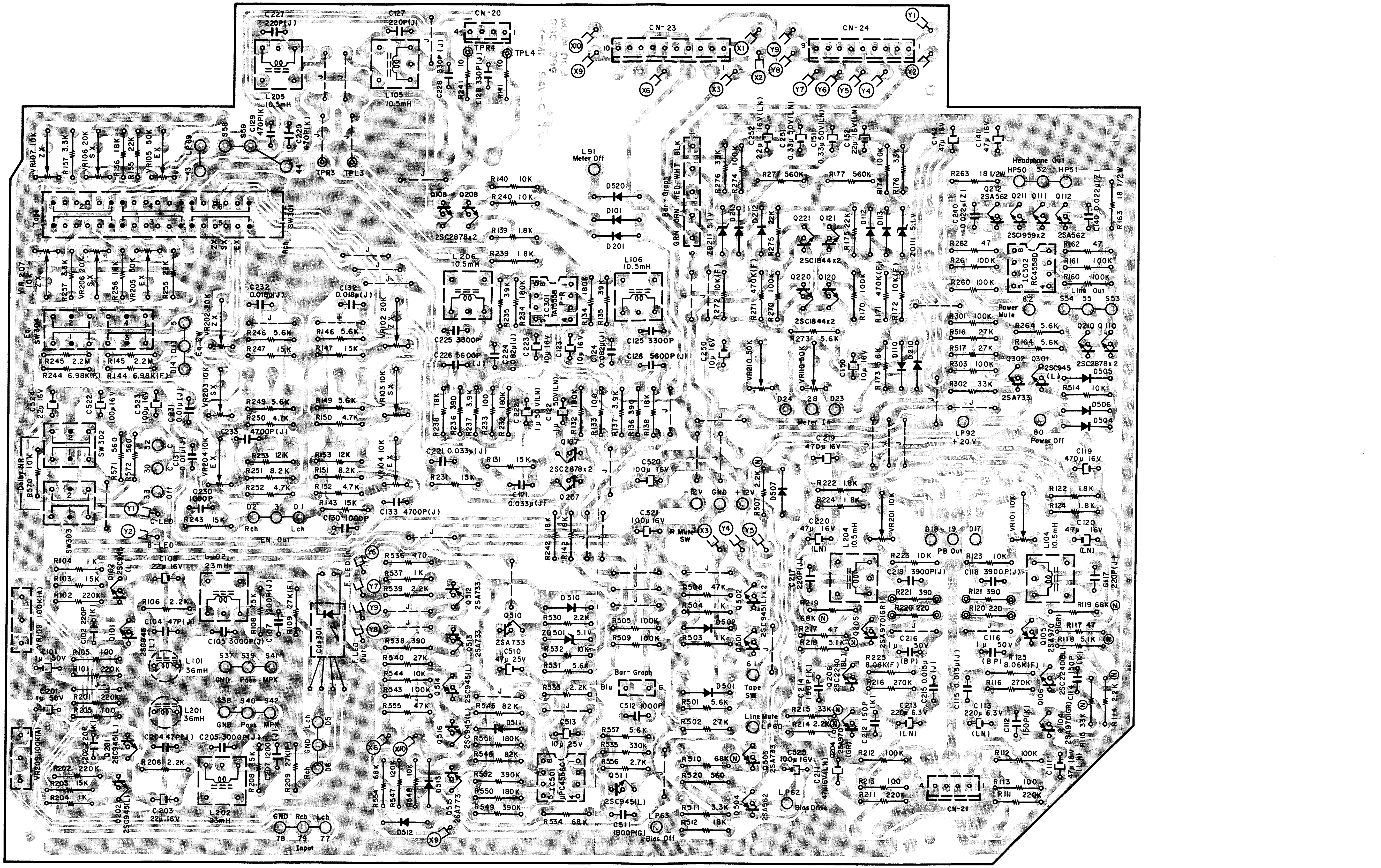

CN-20
CN-23
CN-24
CN-21
C227 220P(J)
C127 220P(J)
L205 10.5mH
L105 10.5mH
TPR4
TPL4
TPR3
TPL3
C228 330P(J)
C128 330P(J)
R241
R141
C129 470P(K)
C229 470P(K)
S58
S59
LP89
VR107 10K Z X
R157 3.3K
VR106 20K S X
R156 18K
R155 22K
VR105 50K E X
Tape
SW301
VR207 10K Z X
R257 3.3K
VR206 20K S X
R256 18K
VR205 50K E X
R255 22K
Eq. SW304
R245 2.2M
R244 6.98K(F)
R145 2.2M
R144 6.98K(F)
Eq. SW
D13
D14
VR202 20K Z X
VR102 20K Z X
C232 0.018μ(J)
C132 0.018μ(J)
R246 5.6K
R247 15K
R146 5.6K
R147 15K
VR203 10K S X
VR103 10K S X
R249 5.6K
R250 4.7K
R149 5.6K
R150 4.7K
C233 4700P(J)
VR204 10K E X
VR104 10K E X
R253 12K
R251 8.2K
R252 4.7K
R153 12K
R151 8.2K
R152 4.7K
R143 15K
R243 15K
C230 1000P
C130 1000P
C133 4700P(J)
D2
D1
Rch
Lch
EN Out
C324 22μ 16V
C522 100μ 16V
C523 100μ 16V
C231 0.01μ(J)
C131 0.01μ(J)
SW302
R571 560
R572 560
Dolby NR
R570 10K
SW303
C-LED
B-LED
Y1
Y2
Q108
Q208
2SC2878x2
R140 10K
R240 10K
R139 1.8K
R239 1.8K
L91 Meter Off
D520
D101
D201
L206 10.5mH
L106 10.5mH
IC301 TA7558P
R235 39K
R234 180K
R135 39K
R134 180K
C225 3300P
C125 3300P
C226 5600P(J)
C126 5600P(J)
C224 0.082μ(J)
C124 0.082μ(J)
C223 10μ 16V
C123 10μ 16V
R238 18K
R236 390
R237 3.9K
R233 100
C222 1μ 50V(LN)
C122 1μ 50V(LN)
R232 180K
R132 180K
R133 100
R137 3.9K
R136 390
R138 18K
C221 0.033μ(J)
C121 0.033μ(J)
R131 15K
R231 15K
Q107
Q207
2SC2878x2
C520 100μ 16V
C521 100μ 16V
-12V
GND
+12V
R507 2.2K
D507
R.Mute SW
X3
Y4
Y5
Bar Graph
GRN ORN RED WHT BLK
ZD211 5.1V
D213
D212
R276 33K
R274 100K
C252 22μ 16V(LN)
C251 0.33μ 50V(LN)
C151 0.33μ 50V(LN)
C152 22μ 16V(LN)
R277 560K
R177 560K
R174 100K
R176 33K
R275 22K
Q221
Q121
2SC1844x2
R175 22K
D112
D113
ZD111 5.1V
R272 10K(F)
R271 470K(F)
R270 100K
Q220
Q120
R170 100K
R171 470K(F)
R172 10K(F)
R273 5.6K
R173 5.6K
C250 10μ 16V
VR210 50K
VR110 50K
C150 10μ 16V
D110
D210
D24
28
D23
Meter In
C142 47μ 16V
C141 47μ 16V
Headphone Out
R263 18 1/2W
HP50
52
HP51
R163 18 1/2W
Q212 2SA562
Q211
Q111
Q112
C240 0.022μ(Z)
C140 0.022μ(Z)
2SC1959x2
2SA562
R262 47
R162 47
R261 100K
R161 100K
IC302 RC4558D
R260 100K
R160 100K
Line Out
S54
55
S53
82
Power Mute
R301 100K
R516 27K
R517 27K
R264 5.6K
R164 5.6K
Q210
Q110
2SC2878x2
Q302
Q301
2SC945(L)
2SA733
D505
R303 100K
R302 33K
R514 10K
D506
D504
LP92 +20V
80 Power Off
C219 470μ 16V
C119 470μ 16V
R222 1.8K
R224 1.8K
R122 1.8K
R124 1.8K
C220 47μ 16V (LN)
C120 47μ 16V (LN)
L204 10.5mH
VR201 10K
VR101 10K
L104 10.5mH
D18
19
D17
PB Out
R223 10K
R123 10K
C217 220P(J)
C218 3900P(J)
C118 3900P(J)
C117 220P(J)
R221 390
R121 390
R220 220
R120 220
R219 68K
R119 68K
R217 47
R117 47
R218 5.1K
R118 5.1K
Q205 2SA970(GR)
Q105 2SA970(GR)
C216 1μ 50V (BP)
C116 1μ 50V (BP)
R225 8.06K(F)
R125 8.06K(F)
C214 150P(K)
C114 150P(K)
Q206 2SC2240(BL)
Q106 2SC2240(BL)
R216 270K
R116 270K
C215 0.015μ(J)
C115 0.015μ(J)
R215 33K
R115 33K
R214 2.2K
R114 2.2K
C212 150P(K)
C112 150P(K)
C213 220μ 6.3V (LN)
C113 220μ 6.3V (LN)
Q204 2SA970(GR)
Q104 2SA970(GR)
C211 47μ 16V(LN)
C111 47μ 16V (LN)
R212 100K
R112 100K
R213 100
R113 100
R211 220K
R111 220K
R104 1K
R103 15K
R102 220K
Q102 2SC945(L)
C103 22μ 16V
L102 23mH
C102 220P(K)
Q101 2SC945(L)
R106 2.2K
C104 47P(J)
R108 15K
C107 1200P(J)
R109 27K(F)
C105 3000P(J)
VR109 100K(A)
C101 1μ 50V
R105 100
R101 220K
L101 36mH
S37
S39
S41
GND
Pass
MPX
C201 1μ 50V
R201 220K
R205 100
L201 36mH
S38
S40
S42
C204 47P(J)
C205 3000P(J)
VR209 100K(A)
C202 220P(K)
Q201 2SC945(L)
R202 220K
R203 15K
R204 1K
R206 2.2K
R208 15K
C207 1200P
R209 27K(F)
Q202 2SC945(L)
C203 22μ 16V
L202 23mH
GND Rch Lch
78 79 77
Input
Cds301
F.LED In
F.LED Out
D5
D6
Y6
Y7
Y9
Y8
R536 470
R537 1K
R539 2.2K
Q512 2SA733
R538 390
Q513 2SA733
R540 27K
R544 10K
R543 100K
Q514 2SC945(L)
R555 47K
R545 82K
D511
R551 180K
R546 82K
Q516 2SC945(L)
R552 390K
R550 180K
R549 390K
R554 68K
R547 120K
R548 10K
D513
Q515 2SA773
D512
X6
X10
X9
D510
Q510 2SA733
R530 2.2K
ZD501 5.1V
C510 47μ 25V
R532 10K
R531 5.6K
R533 2.2K
Blu
Bar-Graph
C512 1000P
C513 10μ 25V
IC501 μPC4556C
R557 5.6K
R535 330K
R556 2.7K
Q511 2SC945(L)
R534 68K
C511 1800P(G)
LP63
Bias Off
R508 47K
R504 1K
Q502 2SC945(L)x2
D502
R505 100K
R509 100K
R503 1K
Q501
61
Tape SW
D501
R501 5.6K
Line Mute
LP60
R502 27K
R510 68K
Q503 2SA733
R520 560
C525 100μ 16V
R511 3.3K
R512 18K
Q504 2SA562
LP62
Bias Drive
X1
X2
X4
X5
Y3

Fig. 7.12.1 Serial No.: A12305404 –

Note: Diode is 1SS53, 1S953, or 1S1555 unless otherwise specified.

Schematic Ref. No.	Part No.	Description
	BA04753A	Main P.C.B. Ass'y Serial No.: A12305404 –
	– PB Eq. Amp. –	
Q104,105 204,205	0B06180A	Transistor 2SA970 (GR)
Q106,206	0B06142A	Transistor 2SC2240 (BL)
L104,204	0B00068A	Trap Coil 10.5mH
VR101,201	0B07236A	Semi-fixed Volume 10K
R111,211	0B05625A	Carbon Resistor 220K ERD-25T J
R112,212	0B01889A	Carbon Resistor 100K ERD-25T J
R113,213	0B01679A	Carbon Resistor 100 ERD-25T J
R114,214	0B09309A	Carbon Resistor 2.2K ERD-25TS J (Noiseless)
R115,215	0B09310A	Carbon Resistor 33K ERD-25TS J (Noiseless)
R116,216	0B05620A	Carbon Resistor 270K ERD-25T J
R117,217	0B01706A	Carbon Resistor 47 ERD-25T J
R118,218	0B09388A	Carbon Resistor 5.1K ERD-25TS J (Noiseless)
R119,219	0B09311A	Carbon Resistor 68K ERD-25TS J (Noiseless)
R120,220	0B01933A	Carbon Resistor 220 ERD-25T J
R121,221	0B05691A	Carbon Resistor 390 ERD-25T J
R122,124 222,224	0B05614A	Carbon Resistor 1.8K ERD-25T J
R123,223	0B01888A	Carbon Resistor 10K ERD-25T J
R125,225	0B09431A	Metal Film Resistor 8.06K SN14K2E F
C111,120 211,220	0B09218A	Electrolytic Capacitor 47µ 16V (LN)
C112,114 212,214	0B09281A	Ceramic Capacitor 150P 50V K
C113,213	0B09151A	Electrolytic Capacitor 220µ 6.3V (LN)
C115,215	0B05557A	Mylar Capacitor 0.015µ 50V J
C116,216	0B09187A	Electrolytic Capacitor 1µ 50V (BP)
C117,217	0B09247A	Mica Capacitor 220P 50V J
C118,218	0B01804A	Mylar Capacitor 3900P 50V J
C119,219	0B01392A	Electrolytic Capacitor 470µ 16V
CN21	0B08654A	4P-T Post
	– Rec. Eq. Amp. –	
IC301	0B06287A	IC TA75558P-R
Q107,108 207,208	0B06299A	Transistor 2SC2878
D101,201	0B06181A	Silicon Diode 1SS53
L105,106 205,206	0B00068A	Trap Coil 10.5mH
VR105,205	0B07237A	Semi-fixed Volume 50K
VR106,206	0B07261A	Semi-fixed Volume 20K
VR107,207	0B07236A	Semi-fixed Volume 10K
R131,231	0B01683A	Carbon Resistor 15K ERD-25T J
R132,134 232,234	0B05640A	Carbon Resistor 180K ERD-25T J
R133,233	0B01679A	Carbon Resistor 100 ERD-25T J
R135,235	0B01854A	Carbon Resistor 39K ERD-25T J
R136,236	0B05691A	Carbon Resistor 390 ERD-25T J
R137,237	0B05675A	Carbon Resistor 3.9K ERD-25T J
R138,142 156,238 242,256	0B05560A	Carbon Resistor 18K ERD-25T J
R139,239	0B05614A	Carbon Resistor 1.8K ERD-25T J
R140,240	0B01888A	Carbon Resistor 10K ERD-25T J
R141,241	0B05936A	Carbon Resistor 10 ERD-25T J
R155,255	0B05615A	Carbon Resistor 22K ERD-25T J
R157,257	0B01681A	Carbon Resistor 3.3K ERD-25T J
C121,221	0B05583A	Mylar Capacitor 0.033µ 50V J
C122,222	0B09223A	Electrolytic Capacitor 1µ 50V (LN)
C123,223	0B01412A	Electrolytic Capacitor 10µ 16V
C124,224	0B05685A	Mylar Capacitor 0.082µ 50V J
C125,225	0B09166A	Mylar Capacitor 3300P 50V
C126,226	0B05659A	Mylar Capacitor 5600P 50V J
C127,227	0B09247A	Mica Capacitor 220P 50V J
C128,228	0B09322A	PP Capacitor 330P 100V J
C129,229	0B09286A	Ceramic Capacitor 470P 50V K
SW301	0B07413A	Rotary Switch
CN20	0B08654A	4P-T Post
	– Rec. Level –	
VR102,202	0B07261A	Semi-fixed Volume 20K
VR103,104 203,204	0B07236A	Semi-fixed Volume 10K
R143,147 243,247	0B01683A	Carbon Resistor 15K ERD-25T J
R144,244	0B09604A	Metal Film Resistor 6.98K SN14K2E F
R145,245	0B05671A	Carbon Resistor 2.2M ERD-25T J
R146,149 246,249	0B01887A	Carbon Resistor 5.6K ERD-25T J
R150,152 250,252	0B01846A	Carbon Resistor 4.7K ERD-25T J
R151,251	0B01856A	Carbon Resistor 8.2K ERD-25T J
R153,253	0B09263A	Carbon Resistor 12K ERD-25T J
C130,230	0B00091A	Mylar Capacitor 1000P 50V
C131,231	0B05681A	Mylar Capacitor 0.01µ 50V J
C132,232	0B05832A	Mylar Capacitor 0.018µ 50V J
C133,233	0B05652A	Mylar Capacitor 4700P 50V J
SW304	0B07400A	Push Switch
	– Meter Amp. –	
Q120,121 220,221	0B06119A	Transistor 2SC1844 (P)
ZD111,211	0B06058A	Zener Diode 5.1V YZ051
D110,112 113,210 212,213	0B06181A	Silicon Diode 1SS53
VR110,210	0B07237A	Semi-fixed Volume 50K
R170,174 270,274	0B01889A	Carbon Resistor 100K ERD-25T J
R171,271	0B09775A	Metal Film Resistor 470K SN14K2E F
R172,272	0B09203A	Metal Film Resistor 10K SN14K2E F
R173,273	0B01887A	Carbon Resistor 5.6K ERD-25T J
R175,275	0B05615A	Carbon Resistor 22K ERD-25T J
R176,276	0B09310A	Carbon Resistor 33K ERD-25T J
R177,277	0B05784A	Carbon Resistor 560K ERD-25T J
C150,250	0B01412A	Electrolytic Capacitor 10µ 16V
C151,251	0B09327A	Electrolytic Capacitor 0.33µ 50V (LN)
C152,252	0B09137A	Electrolytic Capacitor 22µ 16V (LN)
CN25	0B08932B	6P-H Connector 400mm
	– Headphone Amp. –	
IC302	0B06124B	IC RC4558D
Q110,210	0B06299A	Transistor 2SC2878
Q111,211	0B06179A	Transistor 2SC1959 (Y)
Q112,212	0B06202A	Transistor 2SA562 (Y)
Q301	0B01872A	Transistor 2SC945 (L)
Q302	0B06013A	Transistor 2SA733
R160,161 260,261 301,303	0B01889A	Carbon Resistor 100K ERD-25T J
R162,262	0B01706A	Carbon Resistor 47 ERD-25T J
R163,263	0B09536A	Fail Safe Type Resistor 18 RSF-1/2B J
R164,264	0B01887A	Carbon Resistor 5.6K ERD-25T J
R302	0B05509A	Carbon Resistor 33K ERD-25T J
C140,240	0B09291A	Ceramic Capacitor 0.022µ 50V Z
C141,142	0B01403A	Electrolytic Capacitor 47µ 16V
	– MPX –	
Q101,102 201,202	0B01872A	Transistor 2SC945 (L)
L101,201	0B03919B	Inductor 36mH
L102,202	0B03563A	19kHz Coil 23mH
VR109,209	0B07402A	Volume 100K (A)
R101,102 201,202	0B05625A	Carbon Resistor 220K ERD-25T J
R103,203	0B01683A	Carbon Resistor 15K ERD-25T J
R104,204	0B01857A	Carbon Resistor 1K ERD-25T J
R105,205	0B01679A	Carbon Resistor 100 ERD-25T J
R106,206	0B05622A	Carbon Resistor 2.2K ERD-25T J
R108,208	0B09183A	Carbon Resistor 7.5K ERD-25T J
R109,209	0B09444A	Metal Film Resistor 27K SN14K2E F
C101,201	0B01405A	Electrolytic Capacitor 1µ 50V
C102,202	0B09283A	Ceramic Capacitor 220P 50V K
C103,203	0B01862A	Electrolytic Capacitor 22µ 16V
C104,204	0B09242A	Mica Capacitor 47P 50V J
C105,205	0B09262A	PP Capacitor 3000P 100V J
C107,207	0B05687A	Mylar Capacitor 1200P 50V J
Cds301	0B06325A	Photocoupler MCD7214F
	– Dolby NR SW –	
D520	0B01909A	Silicon Diode 1S1555
R570	0B01888A	Carbon Resistor 10K ERD-25T J
R571,572	0B05575A	Carbon Resistor 560 ERD-25T J
C522,523	0B01400A	Electrolytic Capacitor 100µ 16V
C524	0B01862A	Electrolytic Capacitor 22µ 16V
CN23	0B08954A	10P-S Post
CN24	0B08953A	9P-T Post
	– Mute –	
Q501,502	0B01872A	Transistor 2SC945 (L)
Q503	0B06013A	Transistor 2SA733
Q504	0B06202A	Transistor 2SA562 (Y)
D501,502 504,505 506,507	0B06181A	Silicon Diode 1SS53
R501	0B01887A	Carbon Resistor 5.6K ERD-25T J
R502,516 517	0B05743A	Carbon Resistor 27K ERD-25T J
R503,504	0B01857A	Carbon Resistor 1K ERD-25T J
R505,509	0B01889A	Carbon Resistor 100K ERD-25T J
R507	0B09309A	Carbon Resistor 2.2K ERD-25TS J (Noiseless)
R508	0B05641A	Carbon Resistor 47K ERD-25T J
R510	0B09311A	Carbon Resistor 68K ERD-25TS J (Noiseless)
R511	0B01681A	Carbon Resistor 3.3K ERD-25T J
R512	0B05560A	Carbon Resistor 18K ERD-25T J
R514	0B01888A	Carbon Resistor 10K ERD-25T J
R520	0B05575A	Carbon Resistor 560 ERD-25T J
C520,521 525	0B01400A	Electrolytic Capacitor 100µ 16V
	– Fader –	
IC501	0B06216A	IC µPC4556C
Q510,512 513,515	0B06013A	Transistor 2SA733
Q511,514 516	0B01872A	Transistor 2SC945 (L)
ZD501	0B06230A	Zener Diode 5.1V RD5.1EB2
D510,511 512,513	0B06181A	Silicon Diode 1SS53
R530,533 539	0B05622A	Carbon Resistor 2.2K ERD-25T J
R531,557	0B01887A	Carbon Resistor 5.6K ERD-25T J
R532,544 548	0B01888A	Carbon Resistor 10K ERD-25T J
R534,554	0B05692A	Carbon Resistor 68K ERD-25T J
R535	0B05627A	Carbon Resistor 330K ERD-25T J
R536	0B05576A	Carbon Resistor 470 ERD-25T J
R537	0B01857A	Carbon Resistor 1K ERD-25T J
R538	0B05691A	Carbon Resistor 390 ERD-25T J
R540	0B05743A	Carbon Resistor 27K ERD-25T J
R543	0B01889A	Carbon Resistor 100K ERD-25T J
R545,546	0B05668A	Carbon Resistor 82K ERD-25T J
R547	0B05621A	Carbon Resistor 120K ERD-25T J
R549,552	0B05676A	Carbon Resistor 390K ERD-25T J
R550,551	0B05640A	Carbon Resistor 180K ERD-25T J
R555	0B05641A	Carbon Resistor 47K ERD-25T J
R556	0B05629A	Carbon Resistor 2.7K ERD-25T J
C510	0B01409A	Electrolytic Capacitor 47µ 25V
C511	0B09409A	PP Capacitor 1800P 100V G
C512	0B00091A	Mylar Capacitor 1000P 50V
C513	0B01674A	Electrolytic Capacitor 10µ 25V
	– Miscellaneous –	
	0B07999D	Main P.C.B.
	0M04226A	Label CN-20 (1 pce.)
	0M04232A	Label CN-21 (1 pce.)
	0M04236A	Label CN-24 (1 pce.)
	0M04237A	Label CN-25 (1 pce.)
	0M04332A	Label CN-23 (1 pce.)
	0J04547A	Eq. Switch Shield (1 pce.)

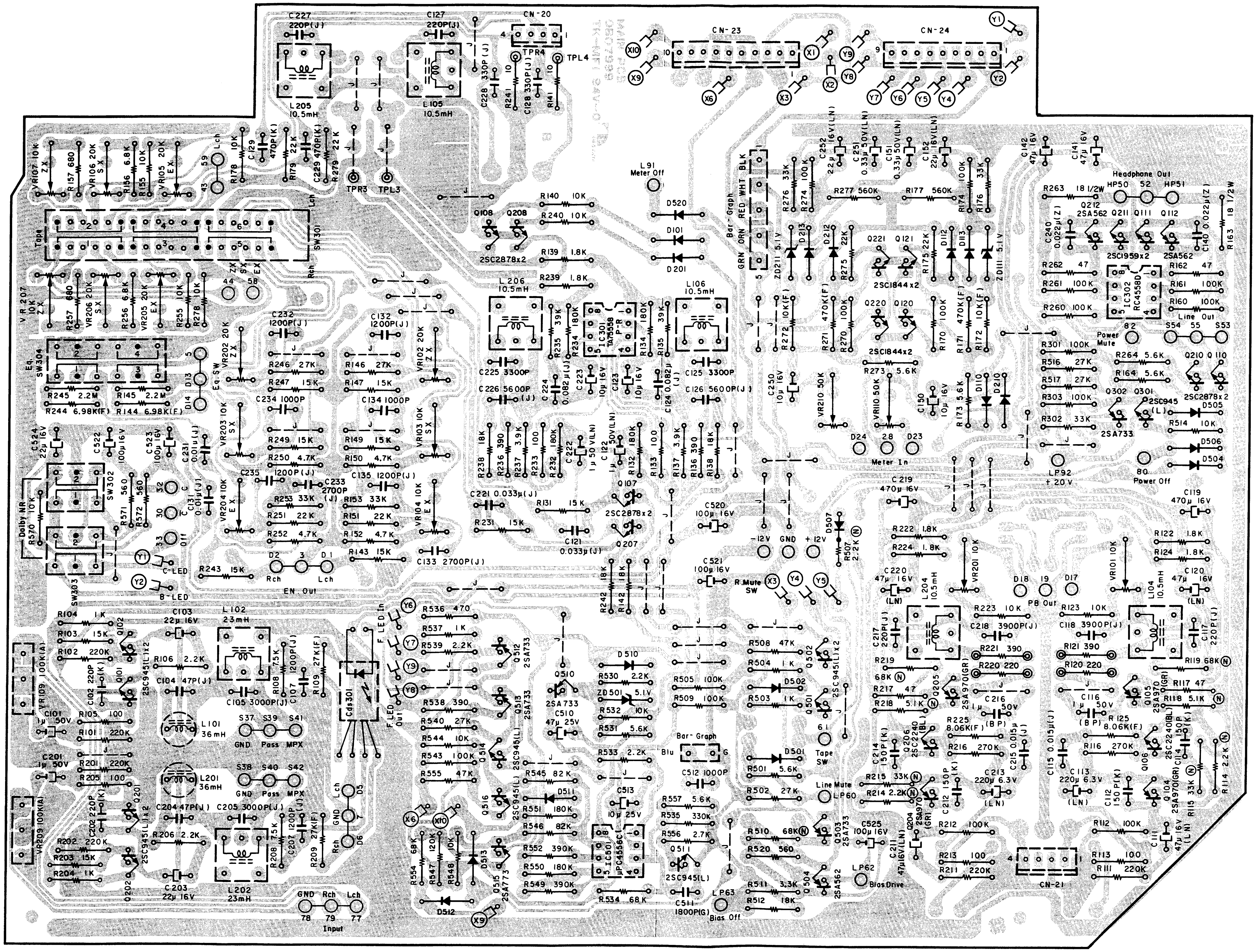

CN-20
CN-23
CN-24
CN-21
TPR3
TPL3
TPR4
TPL4
L205 10.5mH
L105 10.5mH
L206 10.5mH
L106 10.5mH
L101 36mH
L201 36mH
L102 23mH
L202 23mH
L104 10.5mH
L204 10.5mH
SW301
SW302
SW303
SW304
Eq.
Eq. SW
Dolby NR
Tape
Lch
Rch
C-LED
B-LED
EN Out
GND
Pass
MPX
Input
F LED In
F LED Out
Cds301
L91 Meter Off
Bar-Graph
GRN ORN RED WHT BLK
Meter In
Headphone Out
Line Out
Power Mute
Power Off
LP92 ±20V
-12V
GND
+12V
R.Mute SW
Bar-Graph
Blu
G
Tape SW
Line Mute
LP60
LP62 Bias Drive
LP63 Bias Off
PB Out
IC301 TA7558
IC302 RC4558D
IC501 μPC4558C
2SC2878x2
2SC1844x2
2SC1959x2
2SA562
2SA733
2SC945(L)x2
2SA970(GR)
2SC2240(BL)
X1
X2
X3
X6
X9
X10
Y1
Y2
Y4
Y5
Y6
Y7
Y8
Y9

Fig. 7.12.2 Serial Nos.: A12302901 – A12305403

Note: Diode is 1SS53, 1S953, or 1S1555 unless otherwise specified.

Schematic Ref. No.	Part No.	Description
	BA04560A	**Main P.C.B. Ass'y** Serial Nos.: A12302901 – A12305403
	– PB Eq. Amp. –	
Q104,105 204,205	0B06180A	Transistor 2SA970 (GR)
Q106,206	0B06142A	Transistor 2SC2240 (BL)
L104,204	0B00068A	Trap Coil 10.5mH
VR101,201	0B07236A	Semi-fixed Volume 10K
R111,211	0B05625A	Carbon Resistor 220K ERD-25T J
R112,212	0B01889A	Carbon Resistor 100K ERD-25T J
R113,213	0B01679A	Carbon Resistor 100 ERD-25T J
R114,214	0B09309A	Carbon Resistor 2.2K ERD-25TS J (Noiseless)
R115,215	0B09310A	Carbon Resistor 33K ERD-25TS J (Noiseless)
R116,216	0B05620A	Carbon Resistor 270K ERD-25T J
R117,217	0B01706A	Carbon Resistor 47 ERD-25T J
R118,218	0B09388A	Carbon Resistor 5.1K ERD-25TS J (Noiseless)
R119,219	0B09311A	Carbon Resistor 68K ERD-25TS J (Noiseless)
R120,220	0B01933A	Carbon Resistor 220 ERD-25T J
R121,221	0B05691A	Carbon Resistor 390 ERD-25T J
R122,124 222,224	0B05614A	Carbon Resistor 1.8K ERD-25T J
R123,223	0B01888A	Carbon Resistor 10K ERD-25T J
R125,225	0B09431A	Metal Film Resistor 8.06K SN14K2E F
C111,120 211,220	0B09218A	Electrolytic Capacitor 47μ 16V (LN)
C112,114 212,214	0B09281A	Ceramic Capacitor 150P 50V K
C113,213	0B09151A	Electrolytic Capacitor 220μ 6.3V (LN)
C115,215	0B05557A	Mylar Capacitor 0.015μ 50V J
C116,216	0B09187A	Electrolytic Capacitor 1μ 50V (BP)
C117,217	0B09247A	Mica Capacitor 220P 50V J
C118,218	0B01804A	Mylar Capacitor 3900P 50V J
C119,219	0B01392A	Electrolytic Capacitor 470μ 16V
CN21	0B08654A	4P-T Post
	– Rec. Eq. Amp. –	
IC301	0B06287A	IC TA75558P-R
Q107,108 207,208	0B06299A	Transistor 2SC2878
D101,201	0B06181A	Silicon Diode 1SS53
L105,106 205,206	0B00068A	Trap Coil 10.5mH
VR105,106 205,206	0B07261A	Semi-fixed Volume 20K
VR107,207	0B07236A	Semi-fixed Volume 10K
R131,231	0B01683A	Carbon Resistor 15K ERD-25T J
R132,134 232,234	0B05640A	Carbon Resistor 180K ERD-25T J
R133,233	0B01679A	Carbon Resistor 100 ERD-25T J
R135,235	0B01854A	Carbon Resistor 39K ERD-25T J
R136,236	0B05691A	Carbon Resistor 390 ERD-25T J
R137,237	0B05675A	Carbon Resistor 3.9K ERD-25T J
R138,142 238,242	0B05560A	Carbon Resistor 18K ERD-25T J
R139,239	0B05614A	Carbon Resistor 1.8K ERD-25T J
R140,155 178,240 255,278	0B01888A	Carbon Resistor 10K ERD-25T J
R141,241	0B05936A	Carbon Resistor 10 ERD-25T J
R156,256	0B01682A	Carbon Resistor 6.8K ERD-25T J
R157,257	0B05794A	Carbon Resistor 680 ERD-25T J
R179,279	0B05615A	Carbon Resistor 22K ERD-25T J
C121,221	0B05583A	Mylar Capacitor 0.033μ 50V J
C122,222	0B09223A	Electrolytic Capacitor 1μ 50V (LN)
C123,223	0B01412A	Electrolytic Capacitor 10μ 16V
C124,224	0B05685A	Mylar Capacitor 0.082μ 50V J
C125,225	0B09166A	Mylar Capacitor 3300P 50V
C126,226	0B05659A	Mylar Capacitor 5600P 50V J
C127,227	0B09247A	Mica Capacitor 220P 50V J
C128,228	0B09322A	PP Capacitor 330P 100V J
C129,229	0B09286A	Ceramic Capacitor 470P 50V K
SW301	0B07413A	Rotary Switch
CN20	0B08654A	4P-T Post
	– Rec. Level –	
VR102,202	0B07261A	Semi-fixed Volume 20K
VR103,104 203,204	0B07236A	Semi-fixed Volume 10K
R143,147 149,243 247,249	0B01683A	Carbon Resistor 15K ERD-25T J
R144,244	0B09604A	Metal Film Resistor 6.98K SN14K2E F
R145,245	0B05671A	Carbon Resistor 2.2M ERD-25T J
R146,246	0B05743A	Carbon Resistor 27K ERD-25T J
R150,152 250,252	0B01846A	Carbon Resistor 4.7K ERD-25T J
R151,251	0B05615A	Carbon Resistor 22K ERD-25T J
R153,253	0B05509A	Carbon Resistor 33K ERD-25T J
C131,231	0B05681A	Mylar Capacitor 0.01μ 50V J
C132,135 232,235	0B05687A	Mylar Capacitor 1200P 50V J
C133,233	0B09189A	Mylar Capacitor 2700P 50V J
C134,234	0B00091A	Mylar Capacitor 1000P 50V
SW304	0B07400A	Push Switch
	– Meter Amp. –	
Q120,121 220,221	0B06119A	Transistor 2SC1844 (P)
ZD111,211	0B06058A	Zener Diode 5.1V YZ051
D110,112 113,210 212,213	0B06181A	Silicon Diode 1SS53
VR110,210	0B07237A	Semi-fixed Volume 50K
R170,174 270,274	0B01889A	Carbon Resistor 100K ERD-25T J
R171,271	0B09775A	Metal Film Resistor 470K SN14K2E F
R172,272	0B09203A	Metal Film Resistor 10K SN14K2E F
R173,273	0B01887A	Carbon Resistor 5.6K ERD-25T J
R175,275	0B05615A	Carbon Resistor 22K ERD-25T J
R176,276	0B09310A	Carbon Resistor 33K ERD-25T J
R177,277	0B05784A	Carbon Resistor 560K ERD-25T J
C150,250	0B01412A	Electrolytic Capacitor 10μ 16V
C151,251	0B09327A	Electrolytic Capacitor 0.33μ 50V (LN)
C152,252	0B09137A	Electrolytic Capacitor 22μ 16V (LN)
CN25	0B08932B	6P-H Connector 400mm
	– Headphone Amp. –	
IC302	0B06124B	IC RC4558D
Q110,210	0B06299A	Transistor 2SC2878
Q111,211	0B06179A	Transistor 2SC1959 (Y)
Q112,212	0B06202A	Transistor 2SA562 (Y)
Q301	0B01872A	Transistor 2SC945 (L)
Q302	0B06013A	Transistor 2SA733
R160,161 260,261 301,303	0B01889A	Carbon Resistor 100K ERD-25T J
R162,262	0B01706A	Carbon Resistor 47 ERD-25T J
R163,263	0B09536A	Fail Safe Type Resistor 18 RSF-1/2B J
R164,264	0B01887A	Carbon Resistor 5.6K ERD-25T J
R302	0B05509A	Carbon Resistor 33K ERD-25T J
C140,240	0B09291A	Ceramic Capacitor 0.022μ 50V Z
C141,142	0B01403A	Electrolytic Capacitor 47μ 16V
	– MPX –	
Q101,102 201,202	0B01872A	Transistor 2SC945 (L)
L101,201	0B03919B	Inductor 36mH
L102,202	0B03563A	19kHz Coil 23mH
VR109,209	0B07402A	Volume 100K (A)
R101,102 201,202	0B05625A	Carbon Resistor 220K ERD-25T J
R103,203	0B01683A	Carbon Resistor 15K ERD-25T J
R104,204	0B01857A	Carbon Resistor 1K ERD-25T J
R105,205	0B01679A	Carbon Resistor 100 ERD-25T J
R106,206	0B05622A	Carbon Resistor 2.2K ERD-25T J
R108,208	0B09183A	Carbon Resistor 7.5K ERD-25T J
R109,209	0B09444A	Metal Film Resistor 27K SN14K2E F
C101,201	0B01405A	Electrolytic Capacitor 1μ 50V
C102,202	0B09283A	Ceramic Capacitor 220P 50V K
C103,203	0B01862A	Electrolytic Capacitor 22μ 16V
C104,204	0B09242A	Mica Capacitor 47P 50V J
C105,205	0B09262A	PP Capacitor 3000P 100V J
C107,207	0B05687A	Mylar Capacitor 1200P 50V J
Cds301	0B06325A	Photocoupler MCD7214F
	– Dolby NR SW –	
D520	0B01909A	Silicon Diode 1S1555
R570	0B01888A	Carbon Resistor 10K ERD-25T J
R571,572	0B05575A	Carbon Resistor 560 ERD-25T J
C522,523	0B01400A	Electrolytic Capacitor 100μ 16V
C524	0B01862A	Electrolytic Capacitor 22μ 16V
CN23	0B08954A	10P-S Post
CN24	0B08953A	9P-T Post
	– Mute –	
Q501,502	0B01872A	Transistor 2SC945 (L)
Q503	0B06013A	Transistor 2SA733
Q504	0B06202A	Transistor 2SA562 (Y)
D501,502 504,505 506,507	0B06181A	Silicon Diode 1SS53
R501	0B01887A	Carbon Resistor 5.6K ERD-25T J
R502,516	0B05743A	Carbon Resistor 27K ERD-25T J
R517	0B05743A	Carbon Resistor 27K ERD-25T J
R503,504	0B01857A	Carbon Resistor 1K ERD-25T J
R505,509	0B01889A	Carbon Resistor 100K ERD-25T J
R507	0B09309A	Carbon Resistor 2.2K ERD-25TS J (Noiseless)
R508	0B05641A	Carbon Resistor 47K ERD-25T J
R510	0B09311A	Carbon Resistor 68K ERD-25TS J (Noiseless)
R511	0B01681A	Carbon Resistor 3.3K ERD-25T J
R512	0B05560A	Carbon Resistor 18K ERD-25T J
R514	0B01888A	Carbon Resistor 10K ERD-25T J
R520	0B05575A	Carbon Resistor 560 ERD-25T J
C520,521 525	0B01400A	Electrolytic Capacitor 100μ 16V
	– Fader –	
IC501	0B06216A	IC μPC4556C
Q510,512 513,515	0B06013A	Transistor 2SA733
Q511,514 516	0B01872A	Transistor 2SC945 (L)
ZD501	0B06230A	Zener Diode 5.1V RD5.1EB2
D510,511 512,513	0B06181A	Silicon Diode 1SS53
R530,533 539	0B05622A	Carbon Resistor 2.2K ERD-25T J
R531,557	0B01887A	Carbon Resistor 5.6K ERD-25T J
R532,544 548	0B01888A	Carbon Resistor 10K ERD-25T J
R534,554	0B05692A	Carbon Resistor 68K ERD-25T J
R535	0B05627A	Carbon Resistor 330K ERD-25T J
R536	0B05576A	Carbon Resistor 470 ERD-25T J
R537	0B01857A	Carbon Resistor 1K ERD-25T J
R538	0B05691A	Carbon Resistor 390 ERD-25T J
R540	0B05743A	Carbon Resistor 27K ERD-25T J
R543	0B01889A	Carbon Resistor 100K ERD-25T J
R545,546	0B05668A	Carbon Resistor 82K ERD-25T J
R547	0B05621A	Carbon Resistor 120K ERD-25T J
R549,552	0B05676A	Carbon Resistor 390K ERD-25T J
R550,551	0B05640A	Carbon Resistor 180K ERD-25T J
R555	0B05641A	Carbon Resistor 47K ERD-25T J
R556	0B05629A	Carbon Resistor 2.7K ERD-25T J
C510	0B01409A	Electrolytic Capacitor 47μ 25V
C511	0B09409A	PP Capacitor 1800P 100V G
C512	0B00091A	Mylar Capacitor 1000P 50V
C513	0B01674A	Electrolytic Capacitor 10μ 25V
	– Miscellaneous –	
	0B07999B	Main P.C.B.
	0M04226A	Label CN-20 (1 pce.)
	0M04232A	Label CN-21 (1 pce.)
	0M04236A	Label CN-24 (1 pce.)
	0M04237A	Label CN-25 (1 pce.)
	0M04332A	Label CN-23 (1 pce.)
	0J04547A	Eq. Switch Shield (1 pce.)

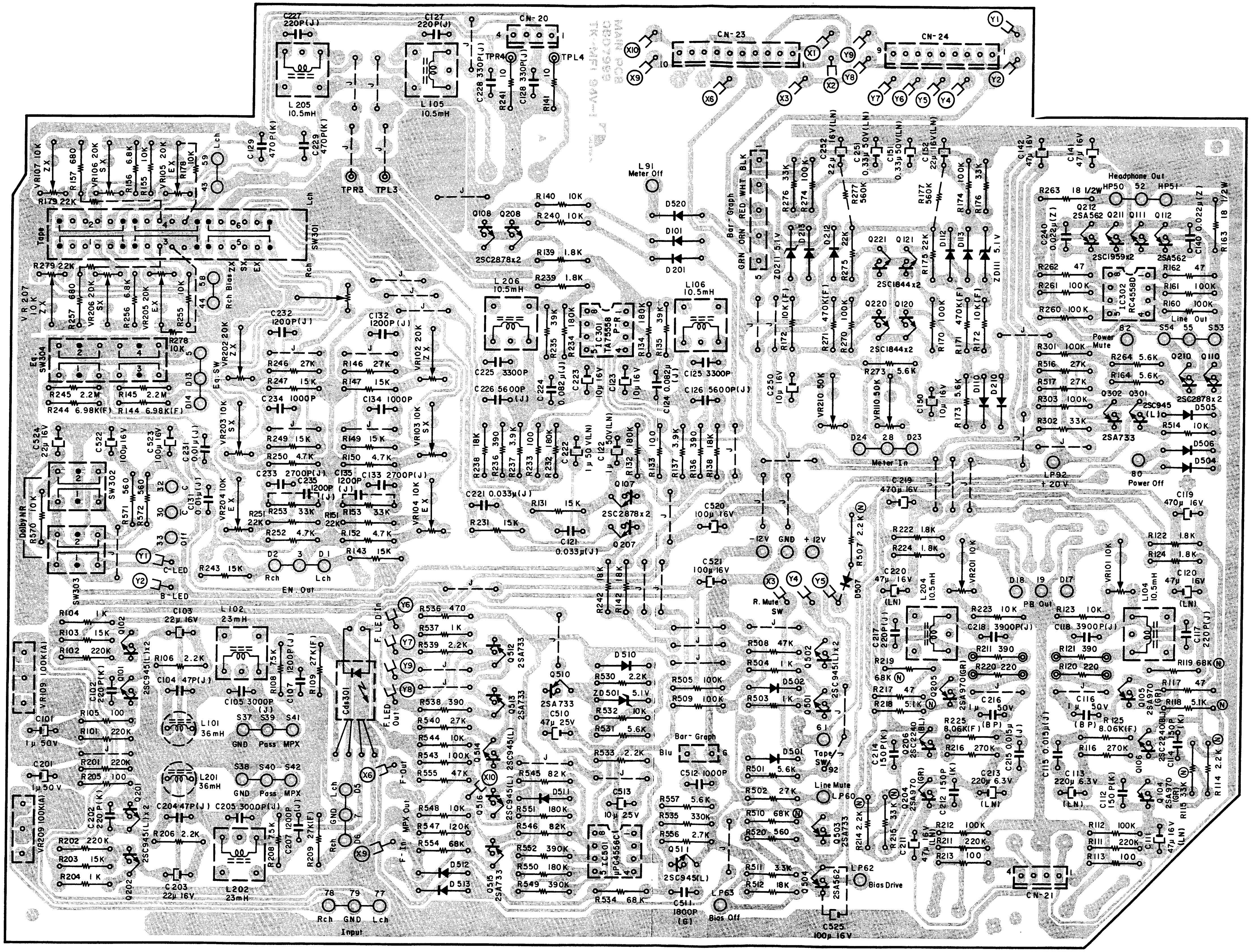

CN-20
CN-23
CN-24
CN-21
L 205 10.5mH
L 105 10.5mH
TPR4
TPL4
TPR3
TPL3
SW301
Tape
Eq. SW304
Dolby NR
SW302
SW303
C-LED
B-LED
EN. Out
Rch
Lch
L91 Meter Off
Bar-Graph
GRN ORN RED WHT BLK
L 206 10.5mH
L106 10.5mH
IC301 TA7558
2SC2878x2
2SC1844x2
Headphone Out
IC302 RC4558D
Line Out
Power Mute
Meter In
LP92 +20 V
Power Off
-12V
GND
+12V
R. Mute SW
L102 23mH
L101 36mH
L201 36mH
L202 23mH
GND Pass MPX
Cds301
F. LED In
F. LED Out
MPX Out
F-In
F-Out
IC501 µPC4556C
Tape SW
Line Mute
LP60
LP62 Bias Drive
LP63 Bias Off
PB Out
L204 10.5mH
L104 10.5mH
Rch GND Lch Input

Fig. 7.12.3 Serial Nos.: A12301001 – A12302900

Note: Diode is 1SS53, 1S953, or 1S1555 unless otherwise specified.

Schematic Ref. No.	Part No.	Description
	BA04560A	**Main P.C.B. Ass'y** Serial Nos.: A12301001 – A12302900
	– PB Eq. Amp. –	
Q104,105 204,205	0B06180A	Transistor 2SA970 (GR)
Q106,206	0B06142A	Transistor 2SC2240 (BL)
L104,204	0B00068A	Trap Coil 10.5mH
VR101,201	0B07236A	Semi-fixed Volume 10K
R111,211	0B05625A	Carbon Resistor 220K ERD-25T J
R112,212	0B01889A	Carbon Resistor 100K ERD-25T J
R113,213	0B01679A	Carbon Resistor 100 ERD-25T J
R114,214	0B09309A	Carbon Resistor 2.2K ERD-25TS J (Noiseless)
R115,215	0B09310A	Carbon Resistor 33K ERD-25TS J (Noiseless)
R116,216	0B05620A	Carbon Resistor 270K ERD-25T J
R117,217	0B01706A	Carbon Resistor 47 ERD-25T J
R118,218	0B09388A	Carbon Resistor 5.1K ERD-25TS J (Noiseless)
R119,219	0B09311A	Carbon Resistor 68K ERD-25TS J (Noiseless)
R120,220	0B01933A	Carbon Resistor 220 ERD-25T J
R121,221	0B05691A	Carbon Resistor 390 ERD-25T J
R122,124 222,224	0B05614A	Carbon Resistor 1.8K ERD-25T J
R123,223	0B01888A	Carbon Resistor 10K ERD-25T J
R125,225	0B09431A	Metal Film Resistor 8.06K SN14K2E F
C111,120 211,220	0B09218A	Electrolytic Capacitor 47µ 16V (LN)
C112,114 212,214	0B09281A	Ceramic Capacitor 150P 50V K
C113,213	0B09151A	Electrolytic Capacitor 220µ 6.3V (LN)
C115,215	0B05557A	Mylar Capacitor 0.015µ 50V J
C116,216	0B09187A	Electrolytic Capacitor 1µ 50V (BP)
C117,217	0B09247A	Mica Capacitor 220P 50V J
C118,218	0B01804A	Mylar Capacitor 3900P 50V J
C119,219	0B01392A	Electrolytic Capacitor 470µ 16V
CN21	0B08654A	4P-T Post
	– Rec. Eq. Amp. –	
IC301	0B06287A	IC TA75558P-R
Q107,108 207,208	0B06299A	Transistor 2SC2878
D101,201	0B06181A	Silicon Diode 1SS53
L105,106 205,206	0B00068A	Trap Coil 10.5mH
VR105,106 205,206	0B07261A	Semi-fixed Volume 20K
VR107,207	0B07236A	Semi-fixed Volume 10K
R131,231	0B01683A	Carbon Resistor 15K ERD-25T J
R132,134 232,234	0B05640A	Carbon Resistor 180K ERD-25T J
R133,233	0B01679A	Carbon Resistor 100 ERD-25T J
R135,235	0B01854A	Carbon Resistor 39K ERD-25T J
R136,236	0B05691A	Carbon Resistor 390 ERD-25T J
R137,237	0B05675A	Carbon Resistor 3.9K ERD-25T J
R138,142 238,242	0B05560A	Carbon Resistor 18K ERD-25T J
R139,239	0B05614A	Carbon Resistor 1.8K ERD-25T J
R140,155 178,240 255,278	0B01888A	Carbon Resistor 10K ERD-25T J
R141,241	0B05936A	Carbon Resistor 10 ERD-25T J
R156,256	0B01682A	Carbon Resistor 6.8K ERD-25T J
R157,257	0B05794A	Carbon Resistor 680 ERD-25T J
R179,279	0B05615A	Carbon Resistor 22K ERD-25T J
C121,221	0B05583A	Mylar Capacitor 0.033µ 50V J
C122,222	0B09223A	Electrolytic Capacitor 1µ 50V (LN)
C123,223	0B01412A	Electrolytic Capacitor 10µ 16V
C124,224	0B05685A	Mylar Capacitor 0.082µ 50V J
C125,225	0B09166A	Mylar Capacitor 3300P 50V
C126,226	0B05659A	Mylar Capacitor 5600P 50V J
C127,227	0B09247A	Mica Capacitor 220P 50V J
C128,228	0B09322A	PP Capacitor 330P 100V J
C129,229	0B09286A	Ceramic Capacitor 470P 50V K
SW301	0B07413A	Rotary Switch
CN20	0B08654A	4P-T Post
	– Rec. Level –	
VR102,202	0B07261A	Semi-fixed Volume 20K
VR103,104 203,204	0B07236A	Semi-fixed Volume 10K
R143,147 149,243 247,249	0B01683A	Carbon Resistor 15K ERD-25T J
R144,244	0B09604A	Metal Film Resistor 6.98K SN14K2E F
R145,245	0B05671A	Carbon Resistor 2.2M ERD-25T J
R146,246	0B05743A	Carbon Resistor 27K ERD-25T J
R150,152 250,252	0B01846A	Carbon Resistor 4.7K ERD-25T J
R151,251	0B05615A	Carbon Resistor 22K ERD-25T J
R153,253	0B05509A	Carbon Resistor 33K ERD-25T J
C131,231	0B05681A	Mylar Capacitor 0.01µ 50V J
C132,135 232,235	0B05687A	Mylar Capacitor 1200P 50V J
C133,233	0B09189A	Mylar Capacitor 2700P 50V J
C134,234	0B00091A	Mylar Capacitor 1000P 50V
SW304	0B07400A	Push Switch
	– Meter Amp. –	
Q120,121 220,221	0B06119A	Transistor 2SC1844 (P)
ZD111,211	0B06058A	Zener Diode 5.1V YZ051
D110,112 113,210 212,213	0B06181A	Silicon Diode 1SS53
VR110,210	0B07237A	Semi-fixed Volume 50K
R170,174 270,274	0B01889A	Carbon Resistor 100K ERD-25T J
R171,271	0B09775A	Metal Film Resistor 470K SN14K2E F
R172,272	0B09203A	Metal Film Resistor 10K SN14K2E F
R173,273	0B01887A	Carbon Resistor 5.6K ERD-25T J
R175,275	0B05615A	Carbon Resistor 22K ERD-25T J
R176,276	0B09310A	Carbon Resistor 33K ERD-25T J
R177,277	0B05784A	Carbon Resistor 560K ERD-25T J
C150,250	0B01412A	Electrolytic Capacitor 10µ 16V
C151,251	0B09327A	Electrolytic Capacitor 0.33µ 50V (LN)
C152,252	0B09137A	Electrolytic Capacitor 22µ 16V (LN)
CN25	0B08932B	6P-H Connector 400mm
	– Headphone Amp. –	
IC302	0B06124B	IC RC4558D
Q110,210	0B06299A	Transistor 2SC2878
Q111,211	0B06179A	Transistor 2SC1959 (Y)
Q112,212	0B06202A	Transistor 2SA562 (Y)
Q301	0B01872A	Transistor 2SC945 (L)
Q302	0B06013A	Transistor 2SA733
R160,161 260,261 301,303	0B01889A	Carbon Resistor 100K ERD-25T J
R162,262	0B01706A	Carbon Resistor 47 ERD-25T J
R163,263	0B09536A	Fail Safe Type Resistor 18 RSF-1/2B J
R164,264	0B01887A	Carbon Resistor 5.6K ERD-25T J
R302	0B05509A	Carbon Resistor 33K ERD-25T J
C140,240	0B09291A	Ceramic Capacitor 0.022µ 50V Z
C141,142	0B01403A	Electrolytic Capacitor 47µ 16V
	– MPX –	
Q101,102 201,202	0B01872A	Transistor 2SC945 (L)
L101,201	0B03919B	Inductor 36mH
L102,202	0B03563A	19kHz Coil 23mH
VR109,209	0B07402A	Volume 100K (A)
R101,102 201,202	0B05625A	Carbon Resistor 220K ERD-25T J
R103,203	0B01683A	Carbon Resistor 15K ERD-25T J
R104,204	0B01857A	Carbon Resistor 1K ERD-25T J
R105,205	0B01679A	Carbon Resistor 100 ERD-25T J
R106,206	0B05622A	Carbon Resistor 2.2K ERD-25T J
R108,208	0B09183A	Carbon Resistor 7.5K ERD-25T J
R109,209	0B09444A	Metal Film Resistor 27K SN14K2E F
C101,201	0B01405A	Electrolytic Capacitor 1µ 50V
C102,202	0B09283A	Ceramic Capacitor 220P 50V K
C103,203	0B01862A	Electrolytic Capacitor 22µ 16V
C104,204	0B09242A	Mica Capacitor 47P 50V J
C105,205	0B09262A	PP Capacitor 3000P 100V J
C107,207	0B05687A	Mylar Capacitor 1200P 50V J
Cds301	0B06325A	Photocoupler MCD7214F
	– Dolby NR SW –	
D520	0B01909A	Silicon Diode 1S1555
R570	0B01888A	Carbon Resistor 10K ERD-25T J
R571,572	0B05575A	Carbon Resistor 560 ERD-25T J
C522,523	0B01400A	Electrolytic Capacitor 100µ 16V
C524	0B01862A	Electrolytic Capacitor 22µ 16V
CN23	0B08954A	10P-S Post
CN24	0B08953A	9P-T Post
	– Mute –	
Q501,502	0B01872A	Transistor 2SC945 (L)
Q503	0B06013A	Transistor 2SA733
Q504	0B06202A	Transistor 2SA562 (Y)
D501,502 504,505 506,507	0B06181A	Silicon Diode 1SS53
R501	0B01887A	Carbon Resistor 5.6K ERD-25T J
R502,516	0B05743A	Carbon Resistor 27K ERD-25T J
R517	0B05743A	Carbon Resistor 27K ERD-25T J
R503,504	0B01857A	Carbon Resistor 1K ERD-25T J
R505,509	0B01889A	Carbon Resistor 100K ERD-25T J
R507	0B09309A	Carbon Resistor 2.2K ERD-25TS J (Noiseless)
R508	0B05641A	Carbon Resistor 47K ERD-25T J
R510	0B09311A	Carbon Resistor 68K ERD-25TS J (Noiseless)
R511	0B01681A	Carbon Resistor 3.3K ERD-25T J
R512	0B05560A	Carbon Resistor 18K ERD-25T J
R514	0B01888A	Carbon Resistor 10K ERD-25T J
R520	0B05575A	Carbon Resistor 560 ERD-25T J
C520,521 525	0B01400A	Electrolytic Capacitor 100µ 16V
	– Fader –	
IC501	0B06216A	IC µPC4556C
Q510,512 513,515	0B06013A	Transistor 2SA733
Q511,514 516	0B01872A	Transistor 2SC945 (L)
ZD501	0B06230A	Zener Diode 5.1V RD5.1EB2
D510,511 512,513	0B06181A	Silicon Diode 1SS53
R530,533 539	0B05622A	Carbon Resistor 2.2K ERD-25T J
R531,557	0B01887A	Carbon Resistor 5.6K ERD-25T J
R532,544 548	0B01888A	Carbon Resistor 10K ERD-25T J
R534,554	0B05692A	Carbon Resistor 68K ERD-25T J
R535	0B05627A	Carbon Resistor 330K ERD-25T J
R536	0B05576A	Carbon Resistor 470 ERD-25T J
R537	0B01857A	Carbon Resistor 1K ERD-25T J
R538	0B05691A	Carbon Resistor 390 ERD-25T J
R540	0B05743A	Carbon Resistor 27K ERD-25T J
R543	0B01889A	Carbon Resistor 100K ERD-25T J
R545,546	0B05668A	Carbon Resistor 82K ERD-25T J
R547	0B05621A	Carbon Resistor 120K ERD-25T J
R549,552	0B05676A	Carbon Resistor 390K ERD-25T J
R550,551	0B05640A	Carbon Resistor 180K ERD-25T J
R555	0B05641A	Carbon Resistor 47K ERD-25T J
R556	0B05629A	Carbon Resistor 2.7K ERD-25T J
C510	0B01409A	Electrolytic Capacitor 47µ 25V
C511	0B09409A	PP Capacitor 1800P 100V G
C512	0B00091A	Mylar Capacitor 1000P 50V
C513	0B01674A	Electrolytic Capacitor 10µ 25V
	– Miscellaneous –	
	0B07999A	Main P.C.B.
	0M04226A	Label CN-20 (1 pce.)
	0M04232A	Label CN-21 (1 pce.)
	0M04236A	Label CN-24 (1 pce.)
	0M04237A	Label CN-25 (1 pce.)
	0M04332A	Label CN-23 (1 pce.)
	0J04547A	Eq. Switch Shield (1 pce.)

8. MECHANISM ASS'Y AND PARTS LIST

8.1. Synthesis

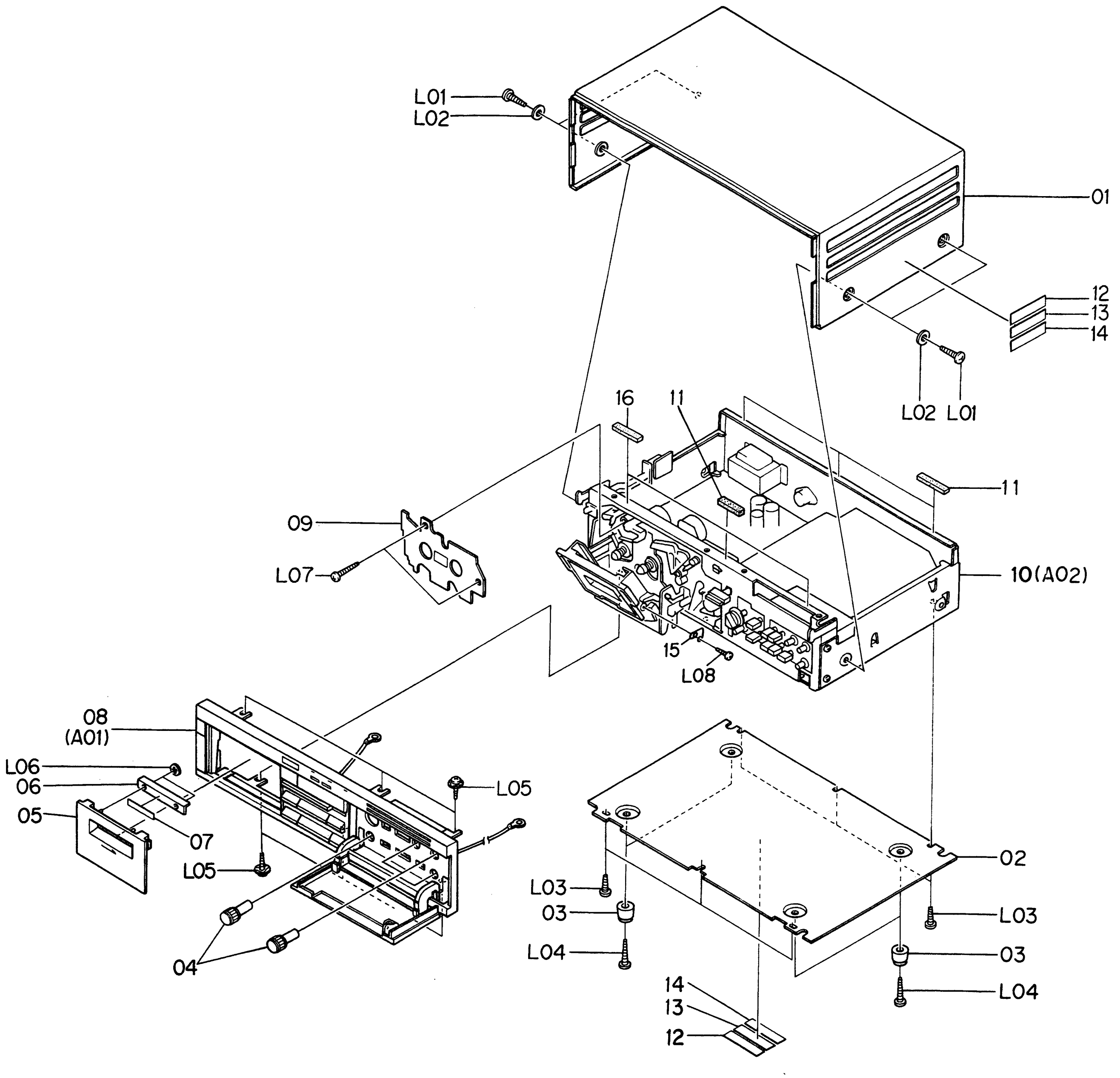


Fig. 8.1

Schematic Ref. No.	Part No.	Description	Q'ty	Schematic Ref. No.	Part No.	Description	Q'ty
	HA04237A	**Synthesis (Japan)**	1		**HA04237A**	**Synthesis (Japan)**	1
	HA04238A	**Synthesis (U.S.A. & Canada)**	1		**HA04238A**	**Synthesis (U.S.A. & Canada)**	1
	HA04239A	**Synthesis (220V Class 2)**	1		**HA04239A**	**Synthesis (220V Class 2)**	1
	HA04240A	**Synthesis (UK)**	1		**HA04240A**	**Synthesis (UK)**	1
	HA04241A	**Synthesis (Australia)**	1		**HA04241A**	**Synthesis (Australia)**	1
	HA04242A	**Synthesis (Others)**	1		**HA04242A**	**Synthesis (Others)**	1
		Serial No.: A12305404 –				Serial Nos.: A12301001 – A12305403	
01	0H04049C	Top Cover	1	01	0H04049B	Top Cover	1
02	0J04477A	Bottom Cover	1	02	0J04477A	Bottom Cover	1
03	0J03564A	Leg T-H	4	03	0J03564A	Leg T-H	4
04	0H03891A	Control Volume Knob	4	04	0H03891A	Control Volume Knob	4
05	0H04050D	Cassette Case	1	05	0H04050C	Cassette Case	1
06	0H04067A	Cassette Case Cover	1	06	0J04573A	Cassette Case Cover	1
07	0J04572A	Adhesive Tape	1	07	0J04572A	Adhesive Tape	1
08	HA04243A	Front Panel Ass'y	1	08	HA04243A	Front Panel Ass'y	1
09	HA04218A	Cover Plate Ass'y	1	09	HA04218A	Cover Plate Ass'y	1
10	JA03902C	Chassis Ass'y (Japan)	1	10	JA03902A	Chassis Ass'y (Japan)	1
	JA03903C	Chassis Ass'y (U.S.A. & Canada)	1		JA03903A	Chassis Ass'y (U.S.A. & Canada)	1
	JA03904C	Chassis Ass'y (220V Class 2)	1		JA03904A	Chassis Ass'y (220V Class 2)	1
	JA03905C	Chassis Ass'y (UK)	1		JA03905A	Chassis Ass'y (UK)	1
	JA03906C	Chassis Ass'y (Australia)	1		JA03906A	Chassis Ass'y (Australia)	1
	JA03907C	Chassis Ass'y (Others)	1		JA03907A	Chassis Ass'y (Others)	1
11	0J04550A	Top Cover Cushion	4	11	0J04550A	Top Cover Cushion	4
12	0M03883B	Lamp Caution Label (U.S.A. & Canada)	1	12	0M03883B	Lamp Caution Label (U.S.A. & Canada)	1
13	0M03800A	Caution Label H (U.S.A. & Canada)	1	13	0M03800A	Caution Label H (U.S.A. & Canada)	1
14	0M04314A	UL Caution Label (U.S.A. & Canada)	1	14	0M04314A	UL Caution Label (U.S.A. & Canada)	1
	0M04101B	Caution Label (Japan, 220V Class 2, UK, Australia & Others)	1		0M04101B	Caution Label (Japan, 220V Class 2, UK, Australia & Others)	1
15	0J04592B	Cassette Case Earth Spring	1	15	0J04592B	Cassette Case Earth Spring	1
16	0J04587A	Front Cushion	2	16	0J04587A	Front Cushion	2
L01	0E00915A	BT Screw M4x8 Philips Binding Head (Black Chromate)	4	L01	0E00915A	BT Screw M4x8 Philips Binding Head (Black Chromate)	4
L02	0E00736A	Washer 4mm (Black Chromate)	4	L02	0E00736A	Washer 4mm (Black Chromate)	4
L03	0E00857A	BT Screw M3x6 Philips Binding Head	6	L03	0E00857A	BT Screw M3x6 Philips Binding Head	6
L04	0E00865A	BT Screw M3x10 Philips Binding Head (Chromate)	4	L04	0E00865A	BT Screw M3x10 Philips Binding Head (Chromate)	4
L05	0E00943A	BT Screw M3x8 Philips Binding Head (Polywave)	6	L05	0E00943A	BT Screw M3x8 Philips Binding Head (Polywave)	6
L06	0E00967A	Stopper Ring 3mm CS	2	L06	0E00967A	Stopper Ring 3mm CS	2
L07	0E00950A	BT Screw M3x14 Philips Pan Head (Black Chromate)	2	L07	0E00950A	BT Screw M3x14 Philips Pan Head (Black Chromate)	2
L08	0E00840A	BT Screw M2x8 Philips Pan Head	1	L08	0E00840A	BT Screw M2x8 Philips Pan Head	1

8.2. Front Panel Ass'y (A01)

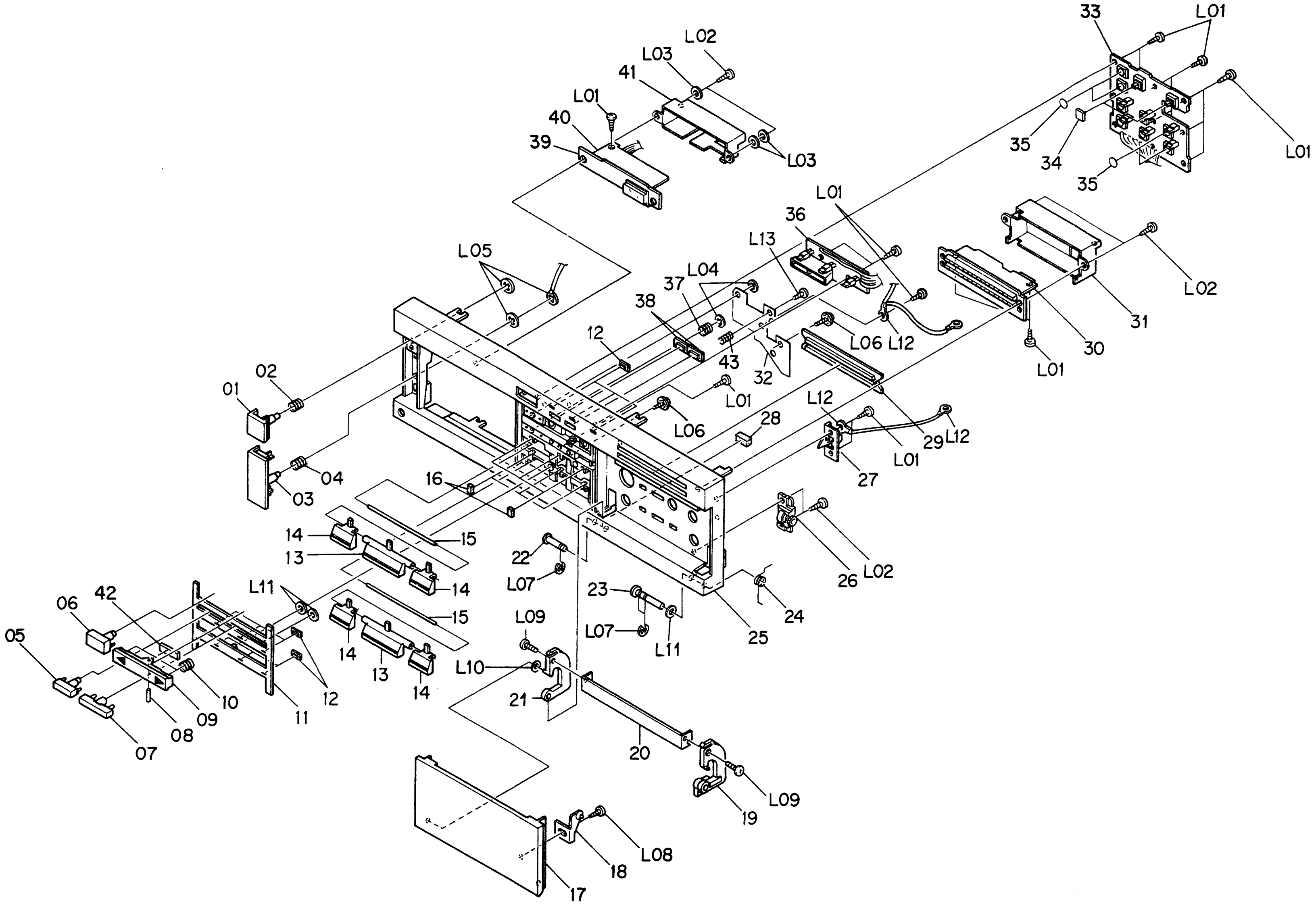

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Fig. 8.2.1 Serial No.: A12305404 –

Schematic Ref. No.	Part No.	Description	Q'ty
A01	HA04243A	**Front Panel Ass'y** Serial No.: A12305404 –	1
01	0H04033B	Power Switch Button	1
02	0J04514C	Power Switch Button Spring	1
03	0H04035B	Eject Button	1
04	0J04513A	Eject Button Spring	1
05	0H04037B	Reset Swtich Button	1
06	0H04036B	Mute Switch Button	1
07	0H04032B	Button Escutcheon S	1
08	0J04517A	Fader Shaft	1
09	0H04045C	Fader Button	1
10	0J04511A	Fader Button Spring	2
11	0H04042E	Front Escutcheon	1
12	0H04041A	LED Lens	9
13	0H04034B	Control Button L	2
14	0H04038B	Control Button S	4
15	0J04508C	Control Button Shaft	2
16	0J04510A	Control Button Cushion	6
17	0H04057C	Front Door	1
18	JA03921A	Adjustment Lid Holder Ass'y	1
19	0H04048B	Door Arm R	1
20	0H04046B	Joint Plate	1
21	0H04047B	Door Arm L	1
22	0J04551B	Door Arm Shaft L	1
23	0J04509B	Door Arm Shaft R	1
24	0J04516B	Door Spring	1
25	0H04039D	Front Panel	1
26	0J04553A	Damper	1
27	JA03923A	Lock Lever Ass'y	1
28	0J04560A	Door Cushion	1
29	0H04000A	Meter Cover	1
30	BA04591A	Indicator P.C.B. Ass'y	1
31	0J04519A	Meter Shield Case	1
32	0J04594A	Earth Sheet A	1
33	BA04592A	Control Switch P.C.B. Ass'y	1
34	0J04557B	Fader Rubber S	2
35	0J04568A	Control Switch Spacer	4
36	BA04593A	LED P.C.B. Ass'y	1
37	0J04512A	Reset Spring	1
38	0H04031A	Fader Lens	2
39	BA04590A	Counter-2 P.C.B. Ass'y	1
40	BA04589A	Counter-1 P.C.B. Ass'y	1
41	0J04518B	Counter Shield Case	1
42	0J04558A	Fader Rubber L	1
43	0J04593B	Fader Earth Spring	1
L01	0E00857A	BT Screw M3x6 Philips Binding Head	18
L02	0E00868A	BT Screw M3x8 Philips Binding Head	6
L03	0E00637A	Washer 3.3mm	3
L04	0E00252A	Stopper Ring CS 3mm	3
L05	0E03014A	Stopper Ring 4mm	3
L06	0E00920A	Screw M3x6 Philips Pan Head (Polywave)	2
L07	0E00181A	E-Ring 3mm	3
L08	0E00965A	BT Screw M3x6 Philips Binding Head (Nickel)	1
L09	0E00593A	Screw M3x6 Philips Binding Head (Bronze)	2
L10	0J04310A	Washer FT40	1
L11	0J04354A	Washer FT30	3
L12	0E00037A	Earth Lug B-5	4
L13	0E03013A	BT Screw M3x5 Philips Binding Head	1

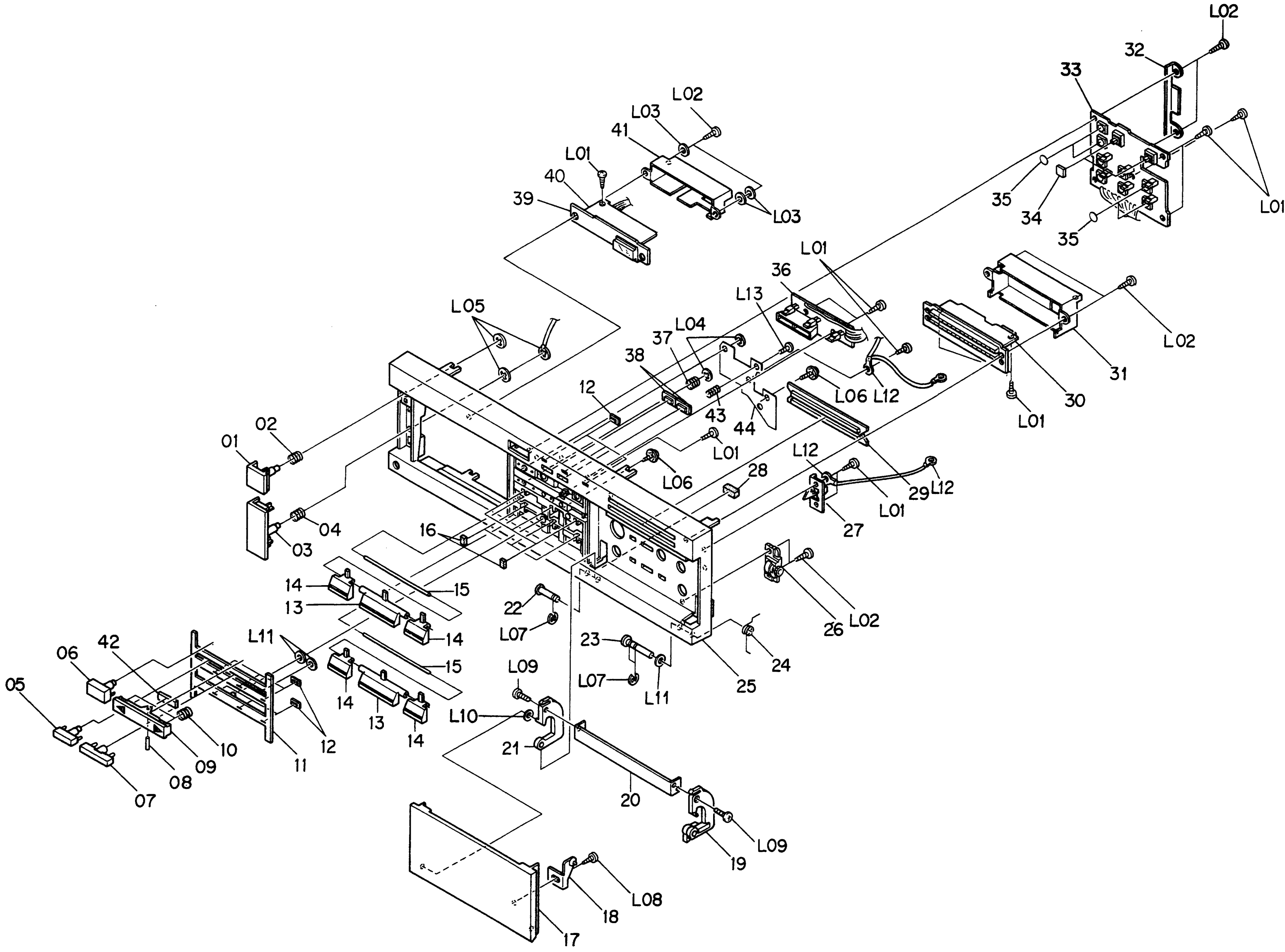


Fig. 8.2.2 Serial Nos.: A12301001 – A12305403

Schematic Ref. No.	Part No.	Description	Q'ty
A01	**HA04243A**	**Front Panel Ass'y** Serial Nos.: A12301001 – A12305403	**1**
01	0H04033B	Power Switch Button	1
02	0J04514C	Power Switch Button Spring	1
03	0H04035B	Eject Button	1
04	0J04513A	Eject Button Spring	1
05	0H04037B	Reset Switch Button	1
06	0H04036B	Mute Switch Button	1
07	0H04032B	Button Escutcheon S	1
08	0J04517A	Fader Shaft	1
09	0H04045C	Fader Button	1
10	0J04511A	Fader Button Spring	2
11	0H04042D	Front Escutcheon	1
12	0H04041A	LED Lens	9
13	0H04034B	Control Button L	2
14	0H04038B	Control Button S	4
15	0J04508C	Control Button Shaft	2
16	0J04510A	Control Button Cushion	6
17	0H04057C	Front Door	1
18	JA03921A	Adjustment Lid Holder Ass'y	1
19	0H04048B	Door Arm R	1
20	0H04046B	Joint Plate	1
21	0H04047B	Door Arm L	1
22	0J04551B	Door Arm Shaft L	1
23	0J04509B	Door Arm Shaft R	1
24	0J04516B	Door Spring	1
25	0H04039D	Front Panel	1
26	0J04553A	Damper	1
27	JA03923A	Lock Lever Ass'y	1
28	0J04560A	Door Cushion	1
29	0H04000A	Meter Cover	1
30	BA04591A	Indicator P.C.B. Ass'y	1

Schematic Ref. No.	Part No.	Description	Q'ty
31	0J04519A	Meter Shield Case	1
32	0J04574A	Control Switch P.C.B. Holder	1
33	BA04592A	Control Switch P.C.B. Ass'y	1
34	0J04557A	Fader Rubber S	2
35	0J04568A	Control Switch Spacer	4
36	BA04593A	LED P.C.B. Ass'y	1
37	0J04512A	Reset Spring	1
38	0H04031A	Fader Lens	2
39	BA04590A	Counter-2 P.C.B. Ass'y	1
40	BA04589A	Counter-1 P.C.B. Ass'y	1
41	0J04518A	Counter Shield Case	1
42	0J04558A	Fader Rubber L	1
43	0J04593B	Fader Earth Spring	1
44	0J04594A	Earth Sheet A	1
L01	0E00857A	BT Screw M3x6 Philips Binding Head	11
L02	0E00868A	BT Screw M3x8 Philips Binding Head	8
L03	0E00637A	Washer 3.3mm	3
L04	0E00252A	Stopper Ring CS 3mm	3
L05	0E00926A	Stopper Ring 4mm	3
L06	0E00920A	Screw M3x6 Philips Pan Head (Polywave)	2
L07	0E00181A	E-Ring 3mm	3
L08	0E00965A	BT Screw M3x6 Philips Binding Head (Nickel)	1
L09	0E00593A	Screw M3x6 Philips Binding Head (Bronze)	2
L10	0J04310A	Washer FT40	1
L11	0J04354A	Washer FT30	3
L12	0E00037A	Earth Lug B-5	4
L13	0E03013A	BT Screw M3x5 Philips Binding Head	1
A02	**JA03902C** **JA03903C** **JA03904C** **JA03905C** **JA03906C** **JA03907C**	**Chassis Ass'y (Japan)** **Chassis Ass'y (U.S.A. & Canada)** **Chassis Ass'y (220V Class 2)** **Chassis Ass'y (UK)** **Chassis Ass'y (Australia)** **Chassis Ass'y (Others)** Serial No.: A12305404 –	**1** **1** **1** **1** **1** **1**
01	JA03911A	Headphone Holder Ass'y	1
02	0H04053B	Monitor Switch Button	1
03	0J04523B	Monitor Switch Base	1
04	0J04527A	Mechanism Bracket	1
05	0J04522D	Front Chassis	1
06	BA04631A	Monitor Switch P.C.B. Ass'y	1
07	0B02228B	Cassette Case Lamp	1
08	0J04506C	Lamp Holder	1
09	0J04469A	Cassette Case Plate	1
10	0B02542A	Cassette Case Lamp P.C.B.	1
11	CA08378A	Mechanism Ass'y LX-5	1
12	0J04535A	Arm Holder	1
13	0J04524B	Power Switch Bar	1
14	BA04626A	Power Switch P.C.B. Ass'y (Japan)	1
	BA04627A	Power Switch P.C.B. Ass'y (U.S.A. & Canada)	1
	BA04628A	Power Switch P.C.B. Ass'y (UK, 220V Class 2, Australia & Others)	1

Schematic Ref. No.	Part No.	Description	Q'ty
15	0H03890B	Control Volume Knob	1
16	0H04054B	Push Button	7
17	0J04525A	Switch Holder	1
18	BA04753A	Main P.C.B. Ass'y	1
19	BA04731A	Amp. Switch P.C.B. Ass'y	1
20	0J04565A	Monitor Switch Shield	1
21	0J04520A	Side Chassis L	1
22	0J04521D	Center Chassis	1
23	0J04471A	Side Chassis R	1
24	0J04548B	Amp. Shield Plate	1
25	BA04645A	Dolby NR P.C.B. Ass'y (Japan, 220V Class 2, UK, Australia & Others)	1
	BA04574A	Dolby NR P.C.B. Ass'y (U.S.A. & Canada)	1
26	0B08771A	Hinge P.C.B.	2
27	BA04641A	Logic & Power P.C.B. Ass'y (U.S.A., Canada & Others)	1
	BA04581A	Logic & Power P.C.B. Ass'y (UK, 220V Class 2 & Australia)	1
	BA04582A	Logic & Power P.C.B. Ass'y (Japan)	1
28	HA04246A	Rear Panel Ass'y (Japan)	1
	HA04247A	Rear Panel Ass'y (U.S.A. & Canada)	1
	HA04248A	Rear Panel Ass'y (220V Class 2)	1
	HA04249A	Rear Panel Ass'y (UK)	1
	HA04250A	Rear Panel Ass'y (Australia)	1
	HA04251A	Rear Panel Ass'y (Others)	1
29	0B08515A	Insu-Lock	30
30	0J04583A	Front Seal	3
31	0J04595A	Earth Sheet B	1
32	0J04418A	Free Bushing 70mm	1
L01	0E00857A	BT Screw M3x6 Philips Binding Head	36
L02	0E00944A	BT Screw M4x15 Philips Binding Head (Black Chromate)	3
L03	0E00924A	BT Screw M4x16 Philips Binding Head	1
L04	0E00078A	Washer 4mm	4
L05	0E00962A	BT Screw M2x6 Philips Binding Head (Black Chromate)	1
L06	0E00860A	BT Screw M3x6 Philips Binding Head (Black Chromate)	2
L07	0E00157A	Washer 3mm	3
L08	0E00612A	Screw M3x6 Philips Pan Head (2A)	8
L09	–	Volume Nut	(2)
L10	–	Volume Washer	(2)
A02	**JA03902A**	**Chassis Ass'y (Japan)**	1
	JA03903A	**Chassis Ass'y (U.S.A. & Canada)**	1
	JA03904A	**Chassis Ass'y (220V Class 2)**	1
	JA03905A	**Chassis Ass'y (UK)**	1
	JA03906A	**Chassis Ass'y (Australia)**	1
	JA03907A	**Chassis Ass'y (Others)**	1
		Serial Nos.: A12301001 – A12305403	
01	JA03911A	Headphone Holder Ass'y	1
02	0H04053B	Monitor Switch Button	1
03	0J04523B	Monitor Switch Base	1
04	0J04527A	Mechanism Bracket	1
05	0J04522C	Front Chassis	1
06	BA04631A	Monitor Switch P.C.B. Ass'y	1
07	0B02228B	Cassette Case Lamp	1
08	0J04506C	Lamp Holder	1
09	0J04469A	Cassette Case Plate	1
10	0B02542A	Cassette Case Lamp P.C.B.	1
11	CA08327A	Mechanism Ass'y LX-5	1
12	0J04535A	Arm Holder	1
13	0J04524A	Power Switch Bar	1
14	BA04626A	Power Switch P.C.B. Ass'y (Japan)	1
	BA04627A	Power Switch P.C.B. Ass'y (U.S.A. & Canada)	1
	BA04628A	Power Switch P.C.B. Ass'y (UK, 220V Class 2, Australia & Others)	1
15	0H03890B	Control Volume Knob	1
16	0H04054B	Push Button	7
17	0J04525A	Switch Holder	1
18	BA04560A	Main P.C.B. Ass'y	1
19	BA04587A	Amp. Switch P.C.B. Ass'y	1
20	0J04565A	Monitor Switch Shield	1
21	0J04520A	Side Chassis L	1
22	0J04521B	Center Chassis	1
23	0J04471A	Side Chassis R	1
24	0J04548B	Amp. Shield Plate	1
25	BA04645A	Dolby NR P.C.B. Ass'y (Japan, 220V Class 2, UK, Australia & Others)	1
	BA04574A	Dolby NR P.C.B. Ass'y (U.S.A. & Canada)	1
26	0B08771A	Hinge P.C.B.	2
27	BA04641A	Logic & Power P.C.B. Ass'y (U.S.A., Canada & Others)	1
	BA04581A	Logic & Power P.C.B. Ass'y (UK, 220V Class 2 & Australia)	1
	BA04582A	Logic & Power P.C.B. Ass'y (Japan)	1
28	HA04246A	Rear Panel Ass'y (Japan)	1
	HA04247A	Rear Panel Ass'y (U.S.A. & Canada)	1
	HA04248A	Rear Panel Ass'y (220V Class 2)	1
	HA04249A	Rear Panel Ass'y (UK)	1
	HA04250A	Rear Panel Ass'y (Australia)	1
	HA04251A	Rear Panel Ass'y (Others)	1
29	0B08515A	Insu-Lock	30
30	0J04583A	Front Seal	3
31	0J04595A	Earth Sheet B	1
32	0J04418A	Free Bushing 70mm	1
L01	0E00857A	BT Screw M3x6 Philips Binding Head	36
L02	0E00944A	BT Screw M4x15 Philips Binding Head (Black Chromate)	3
L03	0E00924A	BT Screw M4x16 Philips Binding Head	1
L04	0E00078A	Washer 4mm	4
L05	0E00962A	BT Screw M2x6 Philips Binding Head (Black Chromate)	1
L06	0E00860A	BT Screw M3x6 Philips Binding Head (Black Chromate)	2
L07	0E00157A	Washer 3mm	3
L08	0E00612A	Screw M3x6 Philips Pan Head (2A)	8
L09	–	Volume Nut	(2)
L10	–	Volume Washer	(2)

8.3. Chassis Ass'y (A02)

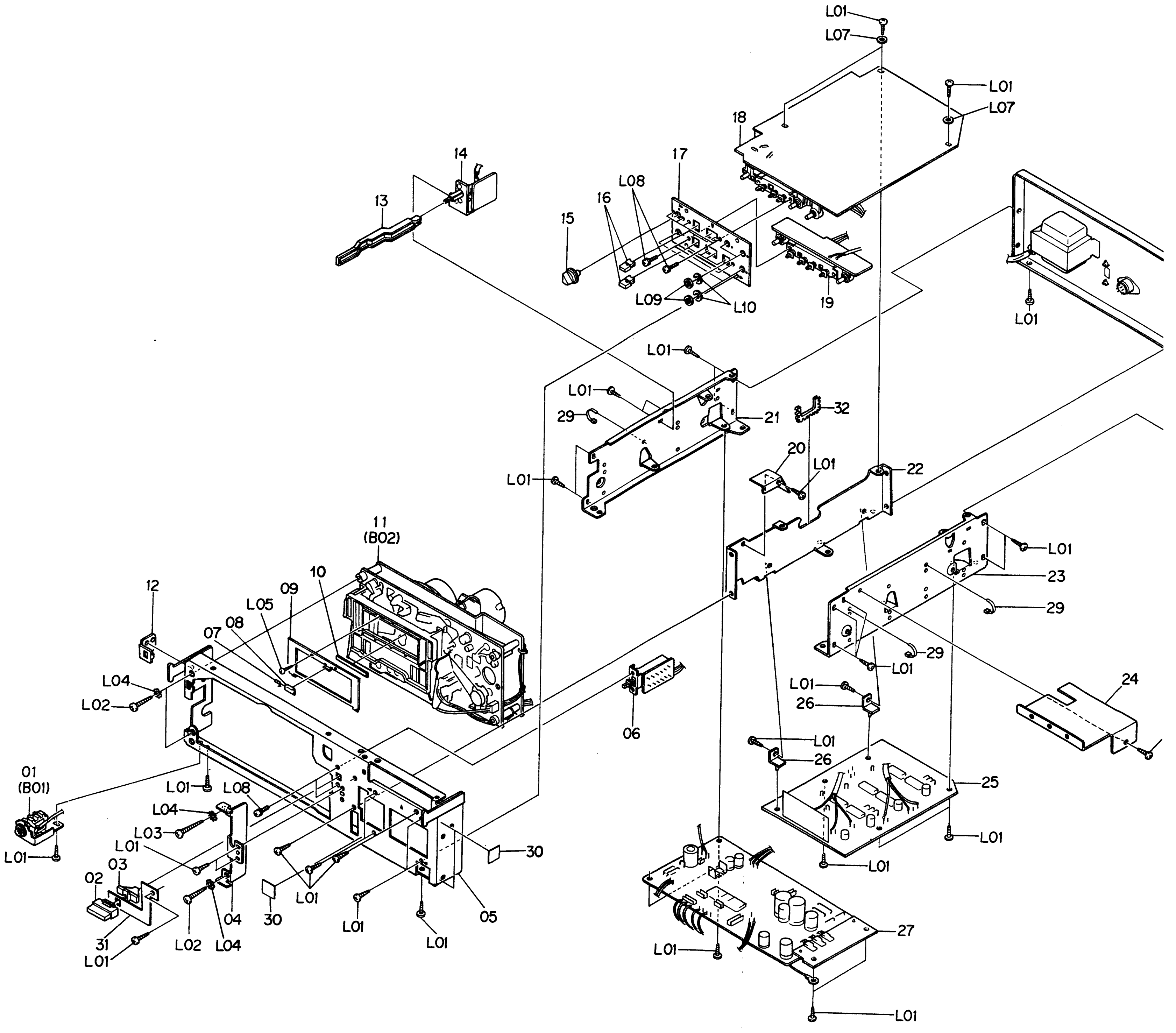


Fig. 8.3

Description	Q'ty
l Volume Knob	1
utton	7
Holder	1
.C.B. Ass'y	1
Switch P.C.B. Ass'y	1
r Switch Shield	1
hassis L	1
Chassis	1
assis R	1
hield Plate	1
NR P.C.B. Ass'y (Japan, V Class 2, UK, Australia thers)	1
NR P.C.B. Ass'y .A. & Canada)	1
.C.B.	2
Power P.C.B. Ass'y .A., Canada & Others)	1
Power P.C.B. Ass'y , 220V Class 2 & Australia)	1
Power P.C.B. Ass'y (Japan)	1
nel Ass'y (Japan)	1
nel Ass'y (U.S.A.& Canada)	1
nel Ass'y (220V Class 2)	1
nel Ass'y (UK)	1
nel Ass'y (Australia)	1
nel Ass'y (Others)	1
ck	30
eal	3
heet B	1
shing 70mm	1
w M3x6 Philips Binding d	36
w M4x15 Philips Binding d (Black Chromate)	3
w M4x16 Philips Binding d	1
4mm	4
w M2x6 Philips Binding d (Black Chromate)	1
w M3x6 Philips Binding (Black Chromate)	2
3mm	3
3x6 Philips Pan Head (2A)	8
Nut	(2)
Washer	(2)
Ass'y (Japan)	1
Ass'y (U.S.A. & Canada)	1
Ass'y (220V Class 2)	1
Ass'y (UK)	1
Ass'y (Australia)	1
Ass'y (Others)	1
os.: 301001 — A12305403	
one Holder Ass'y	1
Switch Button	1
Switch Base	1
ism Bracket	1
hassis	1
Switch P.C.B. Ass'y	1
Case Lamp	1

Schematic Ref. No.	Part No.	Description	Q'ty
08	0J04506C	Lamp Holder	1
09	0J04469A	Cassette Case Plate	1
10	0B02542A	Cassette Case Lamp P.C.B.	1
11	CA08327A	Mechanism Ass'y LX-5	1
12	0J04535A	Arm Holder	1
13	0J04524A	Power Switch Bar	1
14	BA04626A	Power Switch P.C.B. Ass'y (Japan)	1
	BA04627A	Power Switch P.C.B. Ass'y (U.S.A. & Canada)	1
	BA04628A	Power Switch P.C.B. Ass'y (UK, 220V Class 2, Australia & Others)	1
15	0H03890B	Control Volume Knob	1
16	0H04054B	Push Button	7
17	0J04525A	Switch Holder	1
18	BA04560A	Main P.C.B. Ass'y	1
19	BA04587A	Amp. Switch P.C.B. Ass'y	1
20	0J04565A	Monitor Switch Shield	1
21	0J04520A	Side Chassis L	1
22	0J04521B	Center Chassis	1
23	0J04471A	Side Chassis R	1
24	0J04548B	Amp. Shield Plate	1
25	BA04645A	Dolby NR P.C.B. Ass'y (Japan, 220V Class 2, UK, Australia & Others)	1
	BA04574A	Dolby NR P.C.B. Ass'y (U.S.A. & Canada)	1
26	0B08771A	Hinge P.C.B.	2
27	BA04641A	Logic & Power P.C.B. Ass'y (U.S.A., Canada & Others)	1
	BA04581A	Logic & Power P.C.B. Ass'y (UK, 220V Class 2 & Australia)	1
	BA04582A	Logic & Power P.C.B. Ass'y (Japan)	1
28	HA04246A	Rear Panel Ass'y (Japan)	1
	HA04247A	Rear Panel Ass'y (U.S.A. & Canada)	1
	HA04248A	Rear Panel Ass'y (220V Class 2)	1
	HA04249A	Rear Panel Ass'y (UK)	1
	HA04250A	Rear Panel Ass'y (Australia)	1
	HA04251A	Rear Panel Ass'y (Others)	1
29	0B08515A	Insu-Lock	30
30	0J04583A	Front Seal	3
31	0J04595A	Earth Sheet B	1
32	0J04418A	Free Bushing 70mm	1
L01	0E00857A	BT Screw M3x6 Philips Binding Head	36
L02	0E00944A	BT Screw M4x15 Philips Binding Head (Black Chromate)	3
L03	0E00924A	BT Screw M4x16 Philips Binding Head	1
L04	0E00078A	Washer 4mm	4
L05	0E00962A	BT Screw M2x6 Philips Binding Head (Black Chromate)	1
L06	0E00860A	BT Screw M3x6 Philips Binding Head (Black Chromate)	2
L07	0E00157A	Washer 3mm	3
L08	0E00612A	Screw M3x6 Philips Pan Head (2A)	8
L09	—	Volume Nut	(2)
L10	—	Volume Washer	(2)

8.3. Chassis Ass'y (A02)

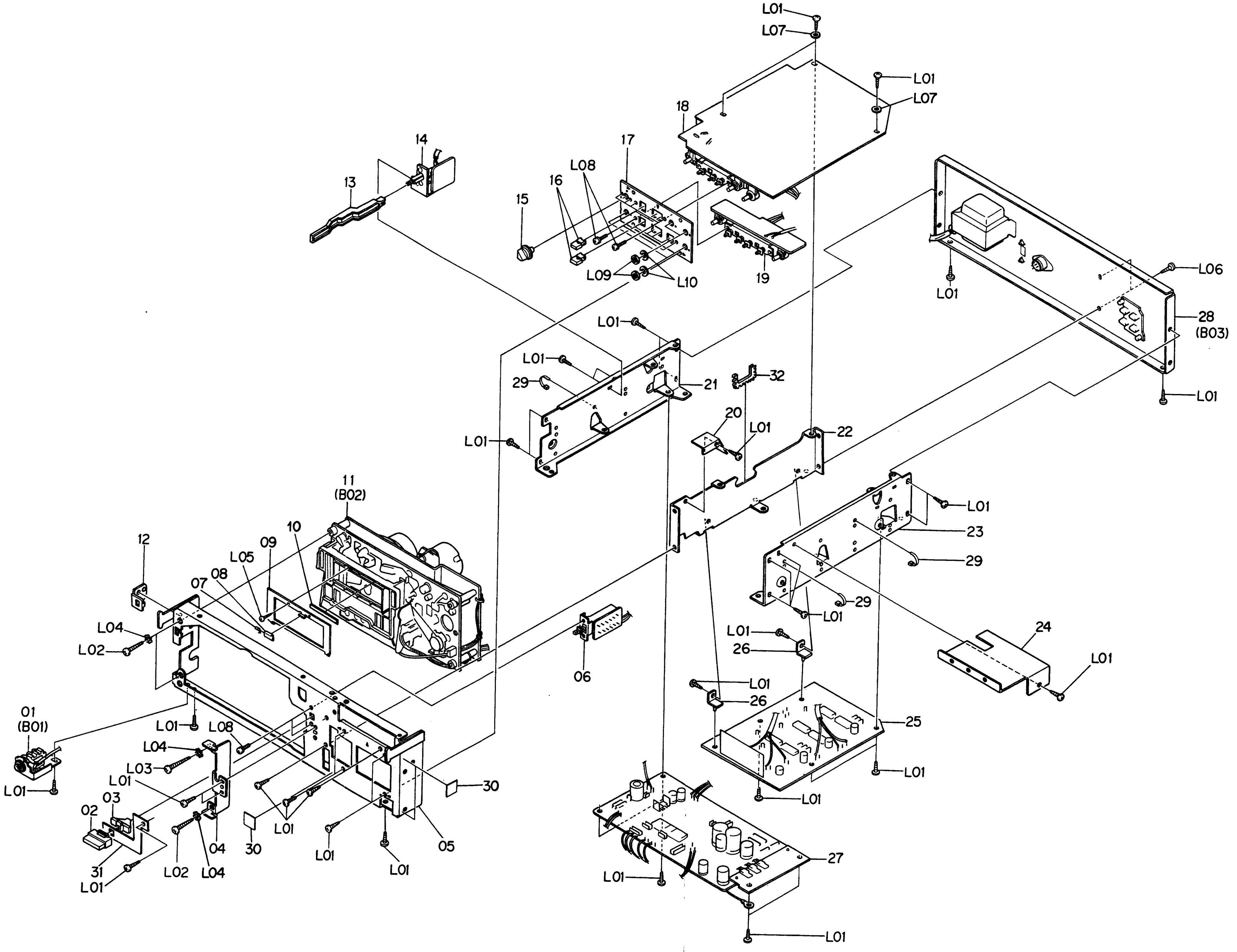


Fig. 8.3

8.4. Headphone Holder Ass'y (B01)

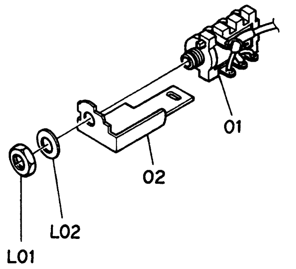

01
02
L02
L01

Fig. 8.4

Schematic Ref. No.	Part No.	Description	Q'ty
B01	JA03911A	**Headphone Holder Ass'y** Serial No.: A12301001 –	1
01	0B08511A	Headphone Jack	1
02	0J04528C	Headphone Jack Holder	1
L01	–	Headphone Jack Washer	(1)
L02	–	Headphone Jack Nut	(1)
B02	CA08378A	**Mechanism Ass'y LX-5** Serial No.: A12305404 –	1
01	CA08333A	Flywheel Holder Ass'y	1
02	0C08096C	Capstan Belt	1
03	CA08169A	Supply Flywheel Ass'y D	1
04	CA08107A	Take-up Flywheel Ass'y	1
05	0C08021B	Thrust Washer 3.1mm	1
06	0C08020B	Thrust Washer 2.6mm	1
07	0C08243A	Flange Thrust Cap	2
08	0C08244A	Flange Thrust Spring	2
09	CA08343A	Sub Mechanism Chassis Ass'y	1
10	0C08099B	Control Motor Belt	1
11	0C08098B	Counter Belt B	1
12	CA08377A	Main Mechanism Chassis Ass'y	1
13	0B08672A	3P-H Connector	1
14	0B08947A	9P-H Connector	1
15	0B08515A	Insu-Lock	10
16	0M03902A	Motor Label	1
–	0M04327A	Mechanism Serial No. Seal	1
L01	0E00834A	BT Screw M3x30 Philips Pan Head	1
L02	0E00178A	Washer 3mm	2
L03	0E00833A	BT Screw M3x20 Philips Pan Head	3
L04	0E00883A	BT Screw M3x18 Philips Pan Head	5
L05	0E00835A	BT Screw M3x25 Philips Pan Head	1

8.5. Mechanism Ass'y LX-5 (B02)

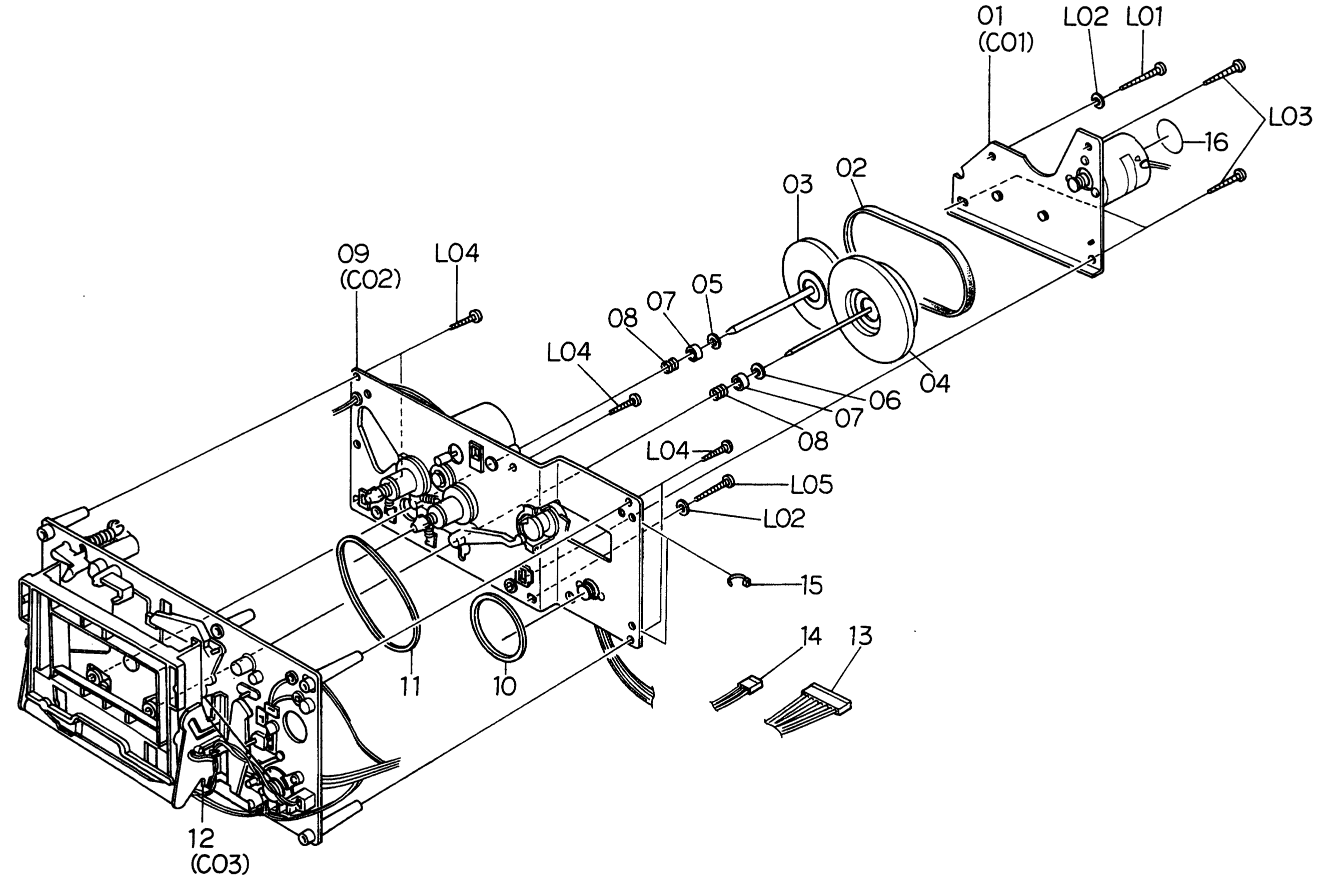

01
(C01)
L02
L01
L03
16
03
02
09
(C02)
L04
08
07
05
L04
06
07
04
08
L04
L05
L02
15
14
13
11
10
12
(C03)

Fig. 8.5

Schematic Ref. No.	Part No.	Description	Q'ty
B02	CA08327A	**Mechanism Ass'y LX-5** Serial Nos.: A12301001 – A12305403	1
01	CA08333A	Flywheel Holder Ass'y	1
02	0C08096C	Capstan Belt	1
03	CA08169A	Supply Flywheel Ass'y D	1
04	CA08107A	Take-up Flywheel Ass'y	1
05	0C08021B	Thrust Washer 3.1mm	1
06	0C08020B	Thrust Washer 2.6mm	1
07	0C08243A	Flange Thrust Cap	2
08	0C08244A	Flange Thrust Spring	2
09	CA08343A	Sub Mechanism Chassis Ass'y	1
10	0C08099B	Control Motor Belt	1
11	0C08098B	Counter Belt B	1
12	CA08329A	Main Mechanism Chassis Ass'y	1
13	0B08672A	3P-H Connector	1
14	0B08947A	9P-H Connector	1
15	0B08515A	Insu-Lock	10
16	0M03902A	Motor Label	1
–	0M04327A	Mechanism Serial No. Seal	1
L01	0E00834A	BT Screw M3x30 Philips Pan Head	1
L02	0E00178A	Washer 3mm	2
L03	0E00833A	BT Screw M3x20 Philips Pan Head	3
L04	0E00883A	BT Screw M3x18 Philips Pan Head	5
L05	0E00835A	BT Screw M3x25 Philips Pan Head	1

8.6. Rear Panel Ass'y (B03)

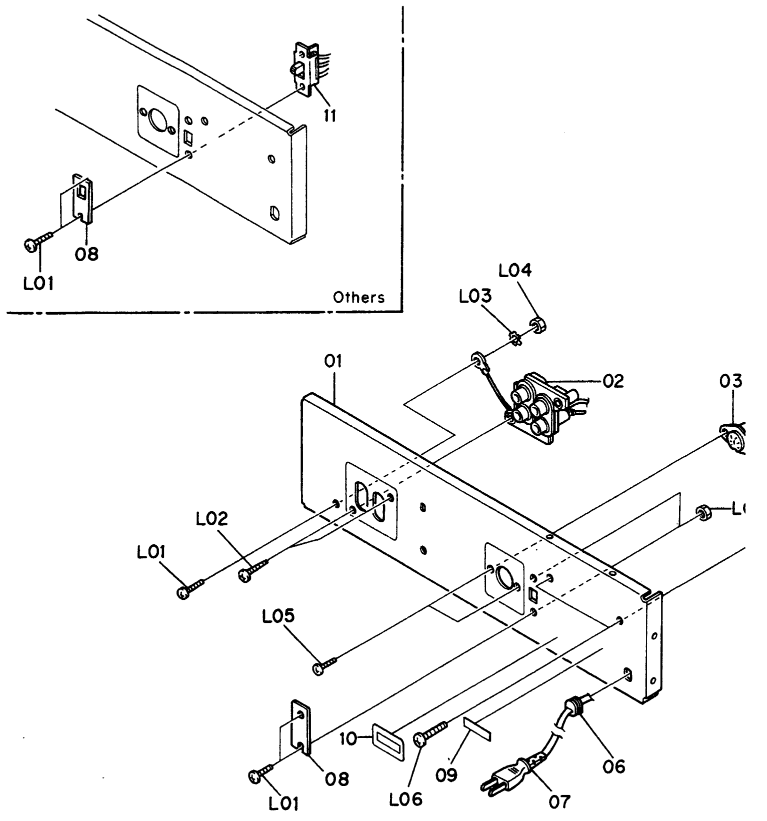

11
08
L01
Others
L04
L03
01
02
03
L02
L01
L05
10
08
L01
L06
09
07
06

Fig. 8.6

8.7. Flywheel Holder Ass'y (C01)

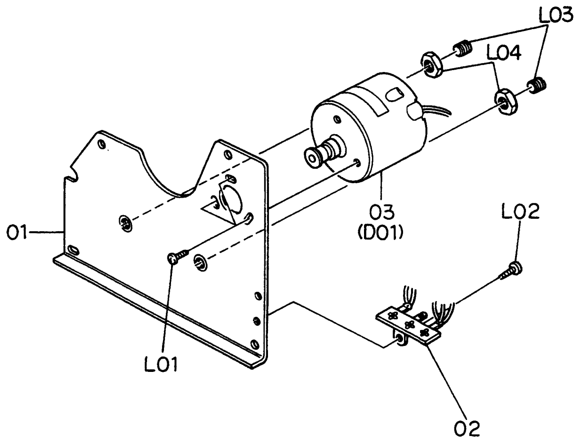

L03
L04
01
03
(D01)
L02
L01
02

Fig. 8.7

8.8. Sub Mechanism Chassis Ass'y (C02)

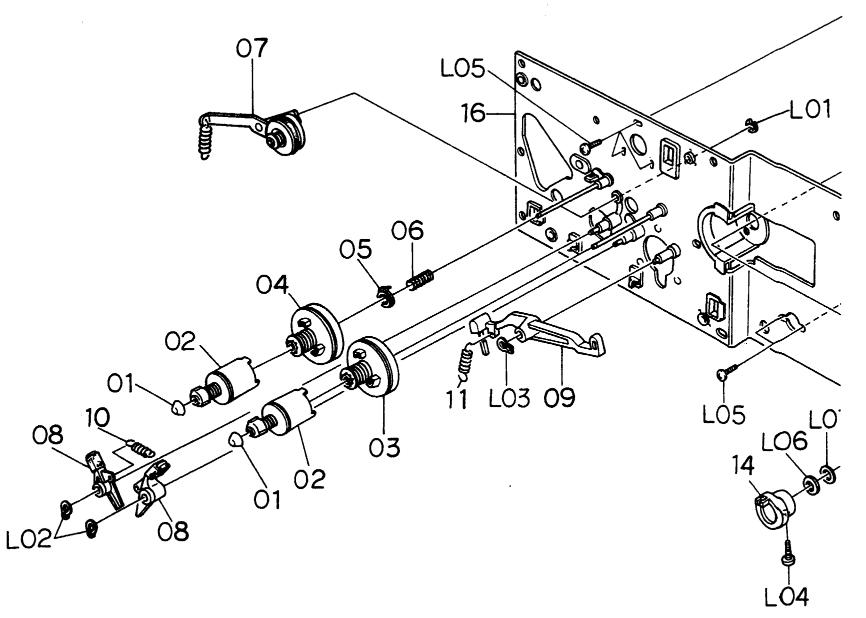
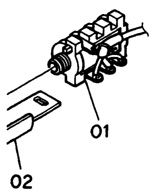

07
L05
16
L01
05
06
04
02
01
10
08
L02
08
01
02
03
11
L03
09
L05
L06
14
L04

Fig. 8.8

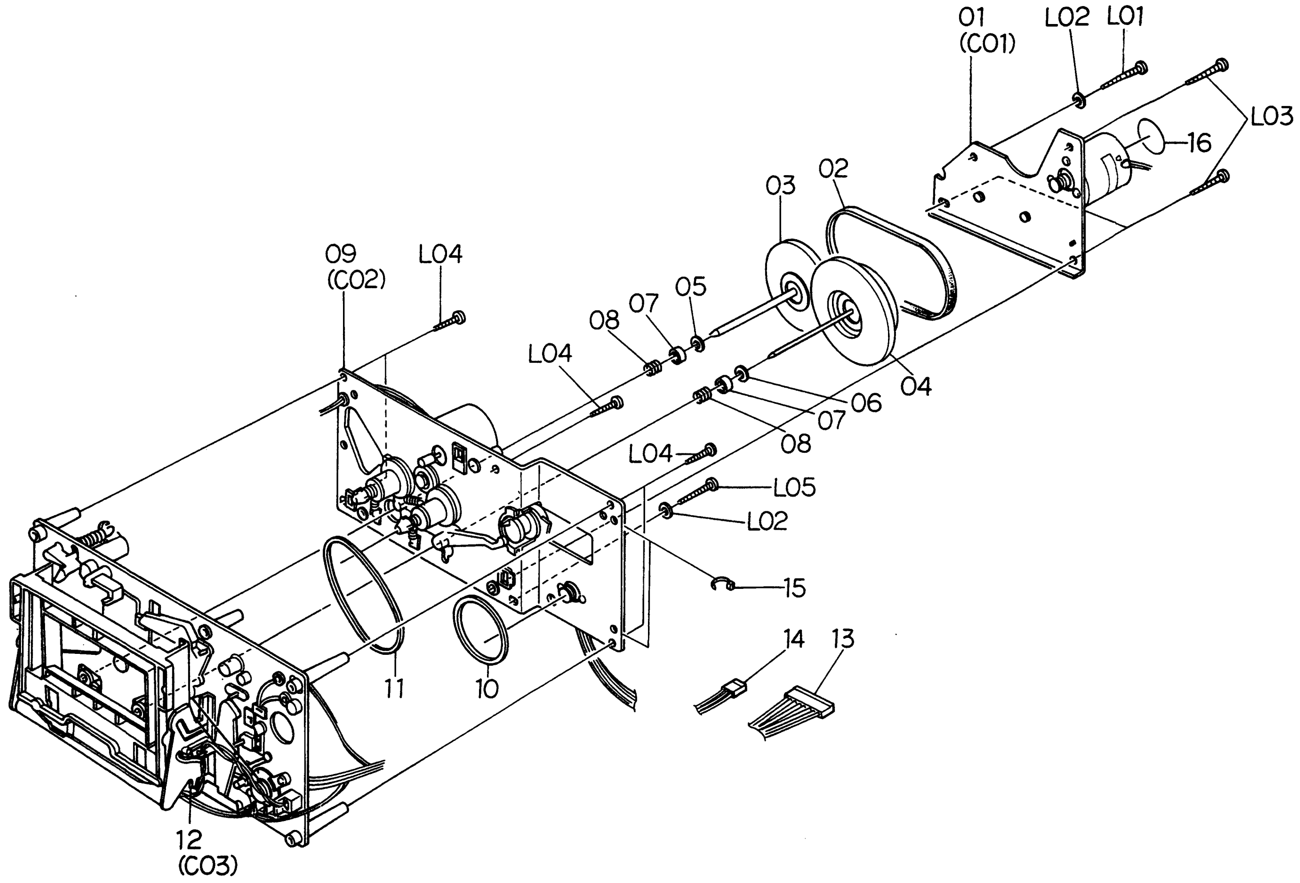
.ss'y (B01)



8.4

Description	Q'ty
ıadphone Holder Ass'y ırial No.: A12301001 –	1
ıadphone Jack	1
ıadphone Jack Holder	1
ıadphone Jack Washer	(1)
ıadphone Jack Nut	(1)
echanism Ass'y LX-5 ırial No.: A12305404 –	1
ywheel Holder Ass'y	1
ıpstan Belt	1
ıpply Flywheel Ass'y D	1
ıke-up Flywheel Ass'y	1
ırust Washer 3.1mm	1
ırust Washer 2.6mm	1
ange Thrust Cap	2
ange Thrust Spring	2
ıb Mechanism Chassis Ass'y	1
ıntrol Motor Belt	1
ıunter Belt B	1
ain Mechanism Chassis Ass'y	1
'-H Connector	1
'-H Connector	1
su-Lock	10
otor Label	1
echanism Serial No. Seal	1
Γ Screw M3x30 Philips Pan Head	1
asher 3mm	2
Γ Screw M3x20 Philips Pan Head	3
Γ Screw M3x18 Philips Pan Head	5
Γ Screw M3x25 Philips Pan Head	1

8.5. Mechanism Ass'y LX-5 (B02)

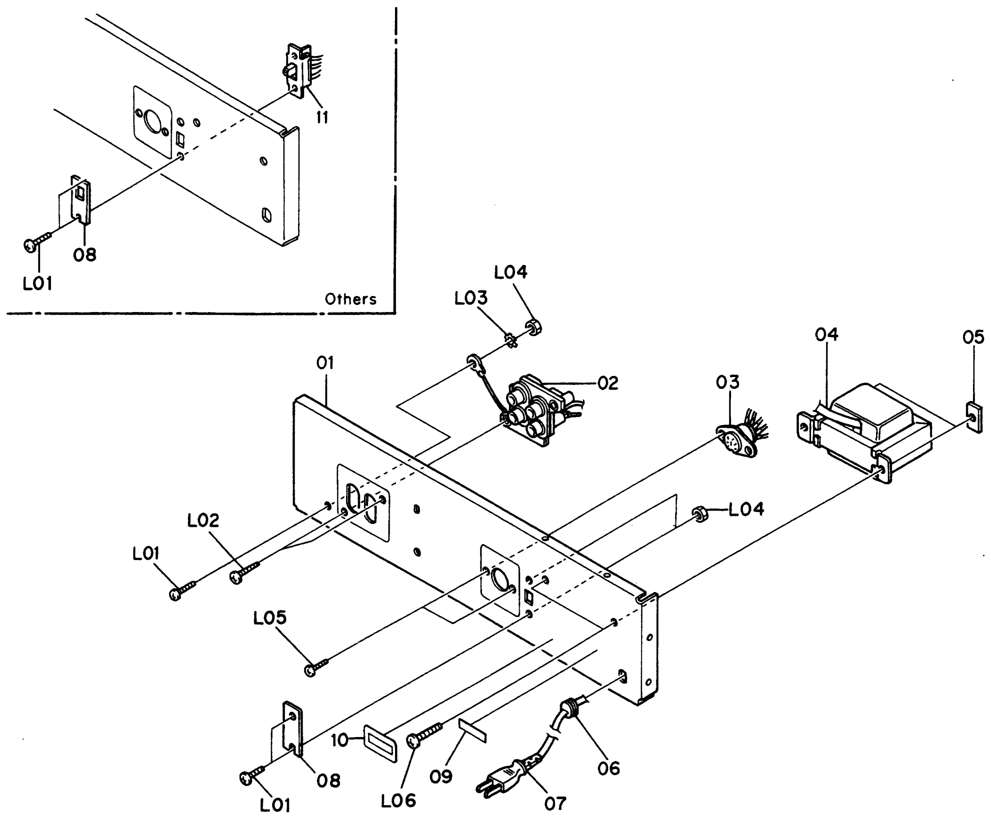


01
(C01)
L02
L01
L03
16
03
02
09
(C02)
L04
08
07
05
L04
04
06
07
08
L04
L05
L02
15
14
13
11
10
12
(C03)

Schematic Ref. No.	Part No.	Description	Q'ty
B02	CA08327A	**Mechanism Ass'y LX-5** Serial Nos.: A12301001 – A12305403	1
01	CA08333A	Flywheel Holder Ass'y	1
02	0C08096C	Capstan Belt	1
03	CA08169A	Supply Flywheel Ass'y D	1
04	CA08107A	Take-up Flywheel Ass'y	1
05	0C08021B	Thrust Washer 3.1mm	1
06	0C08020B	Thrust Washer 2.6mm	1
07	0C08243A	Flange Thrust Cap	2
08	0C08244A	Flange Thrust Spring	2
09	CA08343A	Sub Mechanism Chassis Ass'y	1
10	0C08099B	Control Motor Belt	1
11	0C08098B	Counter Belt B	1
12	CA08329A	Main Mechanism Chassis Ass'y	1
13	0B08672A	3P-H Connector	1
14	0B08947A	9P-H Connector	1
15	0B08515A	Insu-Lock	10
16	0M03902A	Motor Label	1
–	0M04327A	Mechanism Serial No. Seal	1
L01	0E00834A	BT Screw M3x30 Philips Pan Head	1
L02	0E00178A	Washer 3mm	2
L03	0E00833A	BT Screw M3x20 Philips Pan Head	3
L04	0E00883A	BT Screw M3x18 Philips Pan Head	5
L05	0E00835A	BT Screw M3x25 Philips Pan Head	1

Fig. 8.5

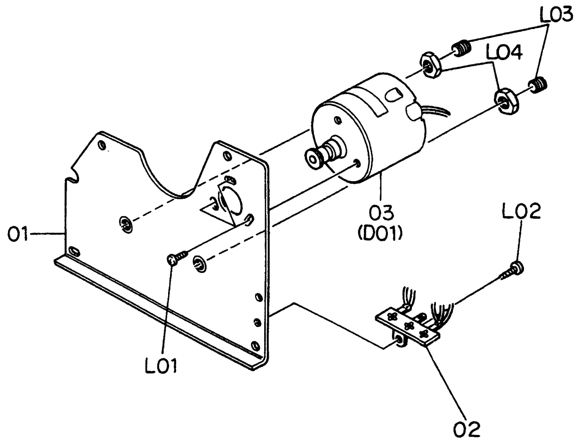
8.6. Rear Panel Ass'y (B03)



11
08
L01
Others
L04
L03
04
05
01
02
03
L04
L02
L01
L05
10
L01
08
L06
09
07
06

Fig. 8.6

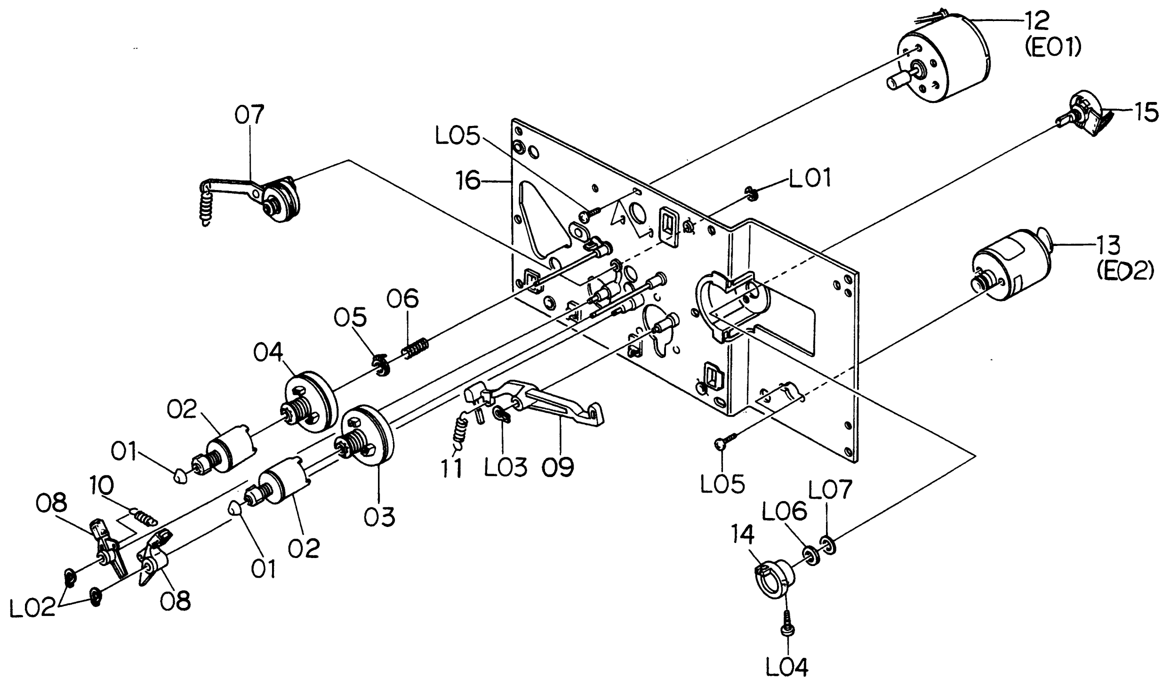
8.7. Flywheel Holder Ass'y (C01)



L03
L04
01
03
(D01)
L02
L01
02

Fig. 8.7

8.8. Sub Mechanism Chassis Ass'y (C02)



12
(E01)
15
07
L05
16
L01
13
(E02)
05
06
04
02
01
10
08
11
L03
09
03
02
01
L02
08
L05
L06
L07
14
L04

Fig. 8.8

Schematic Ref. No.	Part No.	Description	Q'ty
B03	**HA04246A**	**Rear Panel Ass'y (Japan)**	**1**
	HA04247A	**Rear Panel Ass'y (U.S.A. & Canada)**	**1**
	HA04248A	**Rear Panel Ass'y (220V Class 2)**	**1**
	HA04249A	**Rear Panel Ass'y (UK)**	**1**
	HA04250A	**Rear Panel Ass'y (Australia)**	**1**
	HA04251A	**Rear Panel Ass'y (Others)**	**1**
		Serial No.: A12301001 –	
01	0H04051A	Rear Panel	1
02	BA04630A	Pin Jack Ass'y	1
03	BA04629A	8P DIN Socket Ass'y	1
04	0B06663A	Power Transformer (Others)	1
	0B06664B	Power Transformer (220V Class 2, UK & Australia)	1
	0B06665A	Power Transformer (U.S.A. & Canada)	1
	0B06666A	Power Transformer (Japan)	1
05	0C01162B	Bolt Receptacle Plate	2
06	0B08037U	Cord Bushing (U.S.A., Canada, Japan, 220V Class 2, Australia & Others)	1
	0B08351A	Cord Bushing 4K-4 (UK)	1
07	0B08533A	Power Cord (U.S.A. & Canada)	1
	0B08219B	Power Cord (Japan)	1
	0B08093U	Power Cord (220V Class 2)	1
	0B08348A	Power Cord (UK)	1
	0B05241A	Power Cord (Australia)	1
	0B08533A	Power Cord (Others)	1
08	0J03663C	Switch Cover (U.S.A., Canada, Japan, 220V Class 2, UK & Australia)	1
	0M03946A	Voltage Selector Lock Plate C (Others)	1
09	0M03797A	Voltage Label 240V (UK & Australia)	1
	0M03796A	Voltage Label 220V (220V Class 2)	1
	0M04293A	Voltage Label 120V/220V-240V (Others)	1
10	0M03551B	Pass Label	1
11	0B07092U	Voltage Selector (Others)	1
L01	0E00594A	Screw M3x8 Philips Binding Head (Bronze)	3
L02	0E00921A	BT Screw M3x8 Philips Binding Head (Black Chromate)	2
L03	0E00172A	Washer 3mm Toothed Lock	1
L04	0E00507A	Nut Hex. M3	3
L05	0E00714A	Screw M2.6x6 Philips Binding Head (Bronze)	2
L06	0E00953A	Screw M4x10 Philips Binding Head (Black Chromate)	2
–	0M04319A	Serial Number Plate	1
–	0M04113A	LA Label (U.S.A. & Canada)	1
–	0M04185A	FSZ Label (220V Class 2)	1
–	0M04263A	EP Label (220V Class 2)	1
–	0M03844B	BS Code Label (UK)	1
–	0J03644A	Chobert Rivet	2
–	0F01071A	Free-up Belt (220V Class 2, UK & Australia)	1

Schematic Ref. No.	Part No.	Description	Q'ty
C01	**CA08333A**	**Flywheel Holder Ass'y**	**1**
		Serial No.: A12301001 –	
01	0C08013I	Flywheel Holder	1
02	0B04042A	Earth Terminal 1L2P	1
03	CA08118B	Capstan Motor Ass'y	1
L01	0E00226A	Screw M2.6x4 Philips Pan Head	3
L02	0E00843A	BT Screw M3x5 Philips Pan Head	1
L03	0C08068C	Thrust Screw	2
L04	0C03857A	Lock Nut	2
C02	**CA08343A**	**Sub Mechanism Chassis Ass'y**	**1**
		Serial No.: A12301001 –	
01	0C08039B	Reel Hub Head	2
02	CA08038B	Reel Hub B Supply Ass'y	2
03	CA08037A	Reel Hub Take-up Ass'y	1
04	CA08064A	Reel Hub Supply Ass'y	1
05	CA08039A	Back Tension Ass'y	1
06	0C08269A	Back Tension Spring C	1
07	CA08193A	Idler Ass'y	1
08	CA08042A	Brake Ass'y	1
09	0C08030C	Brake Drive Arm	1
10	0C08129A	Brake Arm Spring	1
11	0C08128A	Brake Drive Arm Spring	1
12	CA08242A	Reel Motor Ass'y	1
13	CA08034A	Control Motor Ass'y	1
14	0C08053B	Volume Coupler	1
15	0B07240A	Volume Control 10K (B)	1
16	CA08194A	Sub Chassis Ass'y	1
L01	0E00698A	E-Ring 2.5mm	1
L02	0E00837A	Stopper Ring 3mm	2
L03	0E00838A	Stopper Ring 4mm	1
L04	0E00859A	BT Screw M2.6x6 Philips Binding Head	1
L05	0E00226A	Screw M2.6x4 Philips Pan Head	5
L06	–	Volume Nut	(1)
L07	–	Volume Washer	(1)

Schematic Ref. No.	Part No.	Description	Q'ty	Schematic Ref. No.	Part No.	Description	Q'ty
C03	**CA08377A**	**Main Mechanism Chassis Ass'y** Serial No.: A12305404 –	**1**	**C03**	**CA08329A**	**Main Mechanism Chassis Ass'y** Serial Nos.: A12301001 – A12305403	**1**
01	CA08350A	Cassette Case Holder L Ass'y	1	01	CA08350A	Cassette Case Holder L Ass'y	1
02	0C08151A	Lid Arm Spring Tube	1	02	0C08151A	Lid Arm Spring Tube	1
03	CA08022A	Cassette Case Holder R Ass'y	1	03	CA08022A	Cassette Case Holder R Ass'y	1
04	CA08349A	Cassette Case Ass'y	1	04	CA08349A	Cassette Case Ass'y	1
05	CA08376A	Head Mount Base Ass'y	1	05	CA08331A	Head Mount Base Ass'y	1
06	0C08121A	Supply Pressure Roller Spring	1	06	0C08121A	Supply Pressure Roller Spring	1
07	0C08250A	Supply Pressure Roller Spring B	1	07	0C08250A	Supply Pressure Roller Spring B	1
08	0C08313A	Pressure Roller Arm Bushing	2	08	0C08313A	Pressure Roller Arm Bushing	2
09	CA08053B	Supply Pressure Roller Ass'y	1	09	CA08053B	Supply Pressure Roller Ass'y	1
10	0C08122B	Supply Pressure Roller Thrust Spring	1	10	0C08122B	Supply Pressure Roller Thrust Spring	1
11	CA08079B	Take-up Pressure Roller Ass'y	1	11	CA08079B	Take-up Pressure Roller Ass'y	1
12	0C08183B	Take-up Pressure Roller Thrust Spring	1	12	0C08183B	Take-up Pressure Roller Thrust Spring	1
13	CA08339A	Head Base Ass'y	1	13	CA08339A	Head Base Ass'y	1
14	0C08182A	Pressure Roller Drive Bar B	1	14	0C08182A	Pressure Roller Drive Bar B	1
15	0C08086B	Head Base Roller	3	15	0C08086B	Head Base Roller	3
16	0C08050B	Record Sensor	1	16	0C08050B	Record Sensor	1
17	0C08051E	Cassette Hold Arm	1	17	0C08051E	Cassette Hold Arm	1
18	0C08120A	Cassette Hold Arm Spring	1	18	0C08120A	Cassette Hold Arm Spring	1
19	CA08196A	Back Tension Ass'y	1	19	CA08196A	Back Tension Ass'y	1
20	0C08254A	Back Tension Arm Collar	1	20	0C08254A	Back Tension Arm Collar	1
21	CA08027A	Head Base Drive Arm Ass'y	1	21	CA08027A	Head Base Drive Arm Ass'y	1
22	0C08143C	Head Base Drive Arm Spring	1	22	0C08143C	Head Base Drive Arm Spring	1
23	CA08026A	Pressure Roller Drive Arm Ass'y	1	23	CA08026A	Pressure Roller Drive Arm Ass'y	1
24	CA08353A	Auto Shut-off Ass'y	1	24	CA08353A	Auto Shut-off Ass'y	1
25	0C08119A	Record Protector	1	25	0C08119A	Record Protector	1
26	0C08194C	Damper Lock Arm	1	26	0C08194C	Damper Lock Arm	1
27	0C08153A	Damper Lock Arm Spring Tube	1	27	0C08153A	Damper Lock Arm Spring Tube	1
28	0C08116A	Record Arm Spring	1	28	0C08116A	Record Arm Spring	1
29	CA08030A	Pneumatic Damper Ass'y	1	29	CA08030A	Pneumatic Damper Ass'y	1
30	CA08023A	Supply Capstan Flange Ass'y	1	30	CA08023A	Supply Capstan Flange Ass'y	1
31	CA08024A	Take-up Capstan Flange Ass'y	1	31	CA08024A	Take-up Capstan Flange Ass'y	1
32	0C08186A	Cam Drive Gear	1	32	0C08186A	Cam Drive Gear	1
33	0C08029H	Control Cam	1	33	0C08029H	Control Cam	1
34	0C08117A	Counter-Load Arm Spring	1	34	0C08117A	Counter-Load Arm Spring	1
35	0C08152A	Counter-Load Arm Spring Tube	1	35	0C08152A	Counter-Load Arm Spring Tube	1
36	CA08028A	Counter-Load Arm Ass'y	1	36	CA08028A	Counter-Load Arm Ass'y	1
37	CA08347A	Main Chassis Ass'y	1	37	CA08347A	Main Chassis Ass'y	1
L01	0E00837A	Stopper Ring 3mm	9	L01	0E00837A	Stopper Ring 3mm	9
L02	0E00834A	BT Screw M3x30 Philips Pan Head	2	L02	0E00834A	BT Screw M3x30 Philips Pan Head	2
L03	0E00831A	BT Screw M3x10 Philips Pan Head	3	L03	0E00831A	BT Screw M3x10 Philips Pan Head	3
L04	0E00254A	Washer 3.1mm	2	L04	0E00254A	Washer 3.1mm	2
L05	0E00222A	E-Ring 2mm	2	L05	0E00222A	E-Ring 2mm	2
L06	0E00876A	BT Screw M2.6x8 Philips Pan Head	8	L06	0E00876A	BT Screw M2.6x8 Philips Pan Head	8
L07	0E00178A	Washer 3mm	2	L07	0E00178A	Washer 3mm	2
L08	0E00879A	BT Screw M2x15 Philips Pan Head	1	L08	0E00879A	BT Screw M2x15 Philips Pan Head	1
L09	0E00838A	Stopper Ring 4mm	3	L09	0E00838A	Stopper Ring 4mm	3
L10	0E00846A	BT Screw M3x8 Philips Pan Head	3	L10	0E00846A	BT Screw M3x8 Philips Pan Head	3
L11	0E00895A	Earth Lug 3mm	2	L11	0E00895A	Earth Lug 3mm	2
L12	0E00859A	BT Screw M2.6x6 Philips Binding Head	1	L12	0E00859A	BT Screw M2.6x6 Philips Binding Head	1
L13	0C08255A	Washer 2.6mm	1	L13	0C08255A	Washer 2.6mm	1

8.9. Main Mechanism Chassis Ass'y (C03)

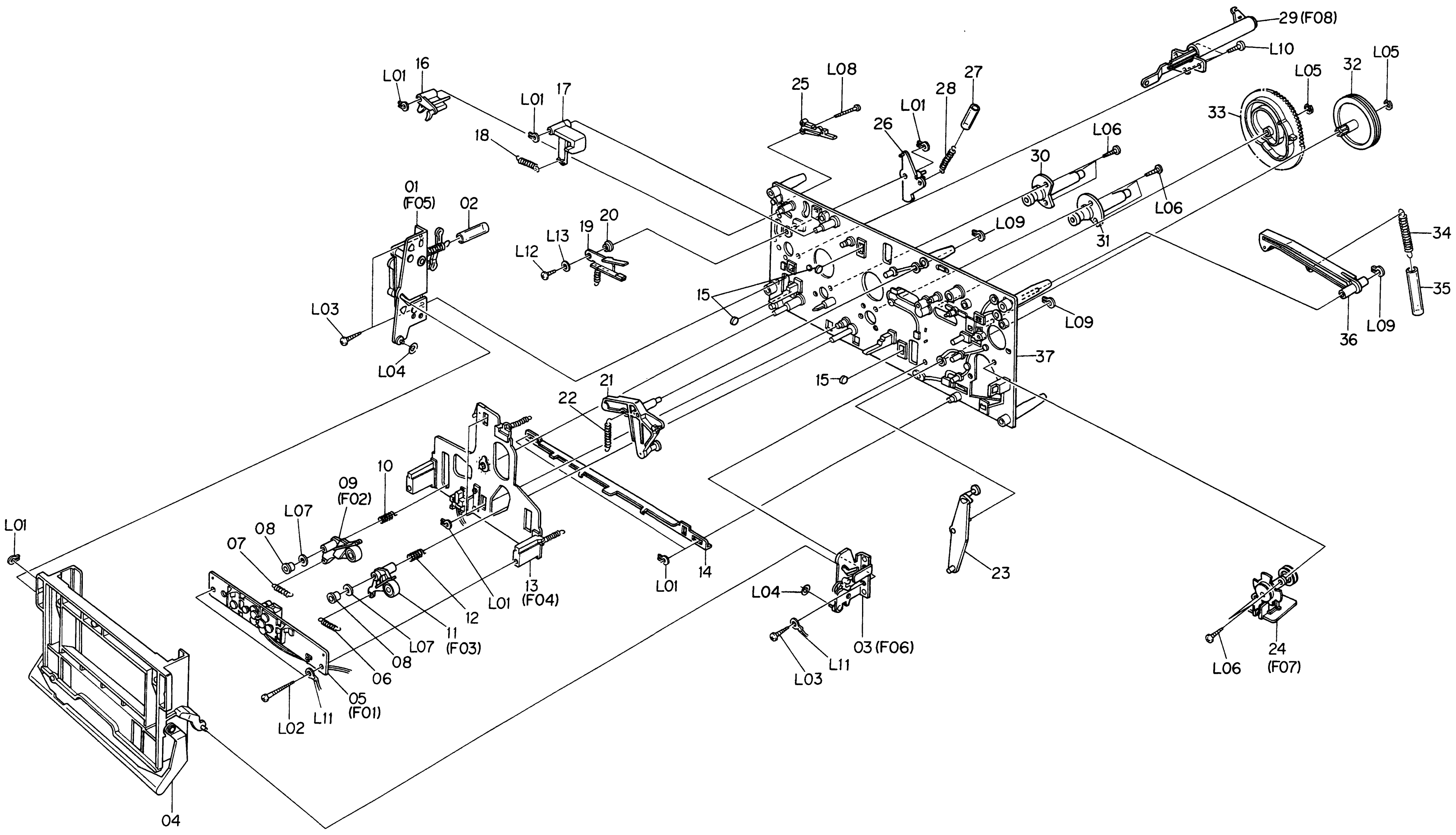

29 (F08)
L10
L05
32
L05
33
L01
16
L01
17
18
25
L08
27
28
L01
26
L06
30
L06
31
L09
34
35
36
L09
01 (F05)
02
L13
19
20
L12
15
L03
L04
21
22
15
37
L09
10
09 (F02)
L07
08
07
L01
13 (F04)
12
11
L07 (F03)
08
06
05 (F01)
L11
L02
14
L01
23
L04
03 (F06)
L11
L03
24 (F07)
L06
04

Fig. 8.9

Schematic Ref. No.	Part No.	Description	Q'ty
D01	**CA08118B**	**Capstan Motor Ass'y** Serial No.: A12301001 –	**1**
01	0C08219A	Capstan Motor	1
02	0C08212C	Capstan Motor Pulley	1
03	0M04077A	Motor Seal	1
E01	**CA08242A**	**Reel Motor Ass'y** Serial No.: A12301001 –	**1**
01	0C08272A	Reel Motor	1
02	0C08063F	Reel Motor Pulley	1
03	0B09290A	Ceramic Capacitor 0.01μ 50V Z	1
E02	**CA08034A**	**Control Motor Ass'y** Serial No.: A12301001 –	**1**
01	0C08137A	Control Motor	1
02	0C08064A	Control Motor Pulley	1
03	0B09292A	Ceramic Capacitor 0.1μ 50V Z	1
04	0M03985A	Control Motor Label	1
05	0M03988A	Motor Seal B	1

8.10. Capstan Motor Ass'y (D01)

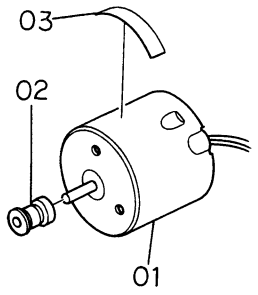


Fig. 8.10

8.12. Control Motor Ass'y (E02)

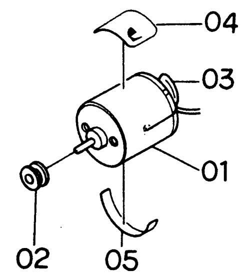

04
03
01
02
05

Fig. 8.12

8.11. Reel Motor Ass'y (E01)

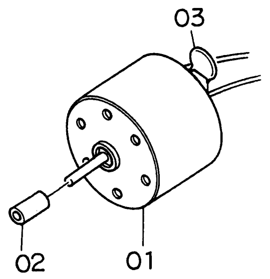


Fig. 8.11

8.13. Head Mount Base Ass'y (F01)

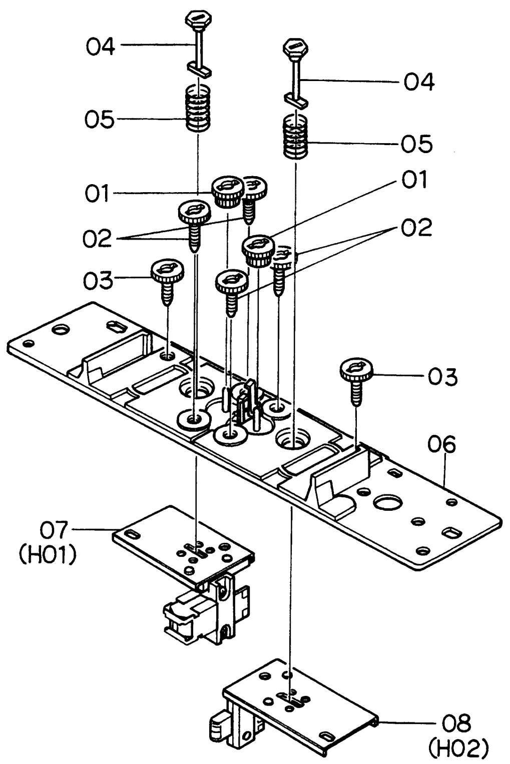


Fig. 8.13

8.14. Supply Pressure Roller Ass'y (F02)

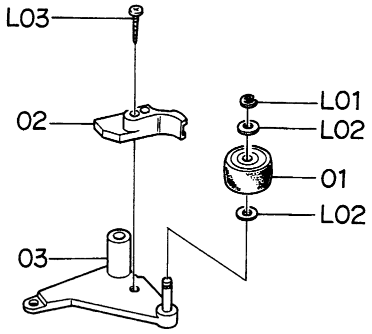


Fig. 8.14

8.15. Take-up Pressure Roller Ass'y (F03)

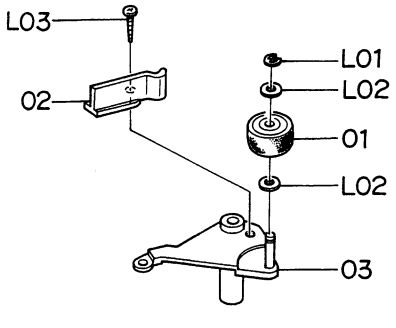


Fig. 8.15

8.16. Head Base Ass'y (F04)

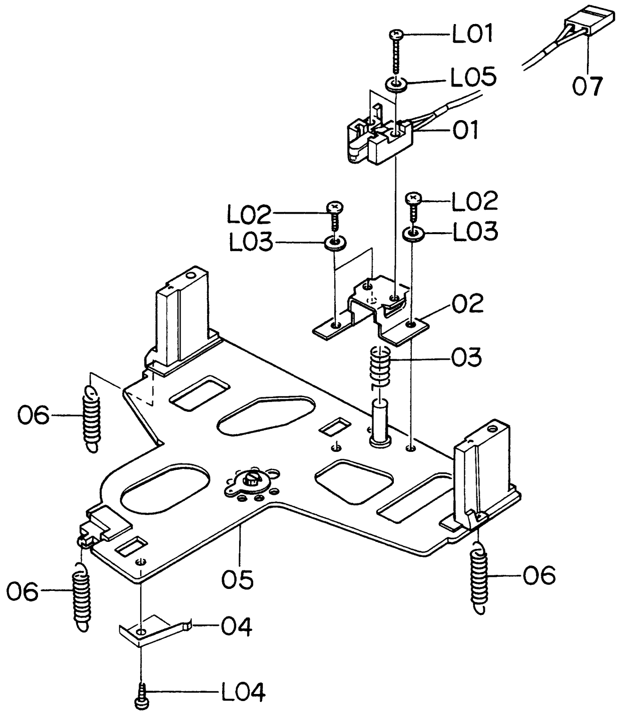


Fig. 8.16

8.17. Cassette Case Holder L Ass'y (F05)

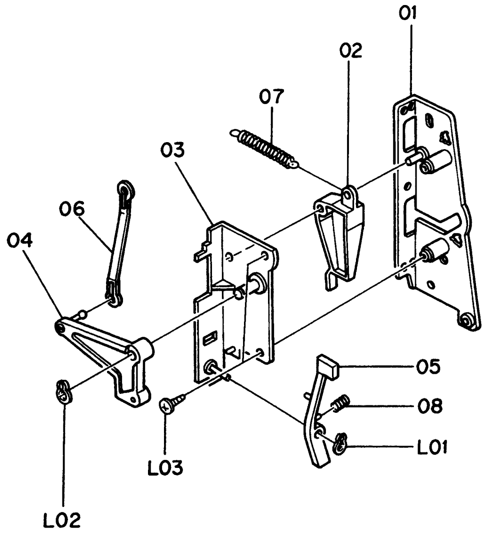


Fig. 8.17

8.18. Cassette Case Holder R Ass'y (F06)

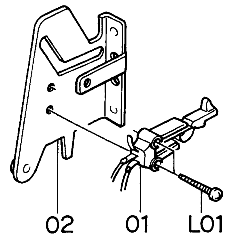


Fig. 8.18

8.19. Auto Shut-off Ass'y (F07)

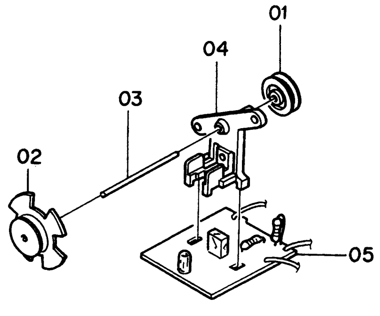


Fig. 8.19

8.20. Pneumatic Damper Ass'y (F08)

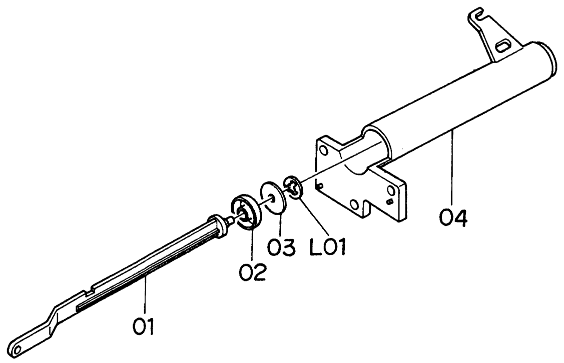


Fig. 8.20

Schematic Ref. No.	Part No.	Description	Q'ty
F01	**CA08376A**	**Head Mount Base Ass'y** Serial No.: A12305404 –	**1**
01	0C08028C	Head Height Adjustment Gear	2
02	0C08027F	Head Height Adjustment Screw	4
03	0C08026D	Azimuth Alignment Screw	2
04	0C08161B	Spring Stopper	2
05	0C08187B	Head Plate Spring	1
06	CA08354A	Head Mount Base Sub Ass'y	1
07	CA08332A	P-8L Playback Head Ass'y	1
08	CA08375A	R-8L Record Head Ass'y	1
F01	**CA08331A**	**Head Mount Base Ass'y** Serial Nos.: A12301001 – A12305403	**1**
01	0C08028C	Head Height Adjustment Gear	2
02	0C08027F	Head Height Adjustment Screw	4
03	0C08026D	Azimuth Alignment Screw	2
04	0C08161B	Spring Stopper	2
05	0C08187B	Head Plate Spring	2
06	CA08354A	Head Mount Base Sub Ass'y	1
07	CA08332A	P-8L Playback Head Ass'y	1
08	CA08330A	R-8L Record Head Ass'y	1
F02	**CA08053B**	**Supply Pressure Roller Ass'y** Serial No.: A12301001 –	**1**
01	0C08164G	Pressure Roller	1
02	0C08189C	Supply Tape Guide	1
03	CA08061A	Supply Pressure Roller Arm Ass'y	1
L01	0E00042A	E-Ring 1.5mm	1
L02	0C08024A	Washer 2mm	2
L03	0E00788A	BT Screw M2x8 Philips Pan Head (Black Chromate)	1
F03	**CA08079B**	**Take-up Pressure Roller Ass'y** Serial No.: A12301001 –	**1**
01	0C08164G	Pressure Roller	1
02	0C08181C	Take-up Tape Guide	1
03	CA08073B	Take-up Pressure Roller Arm Ass'y	1
L01	0E00042A	E-Ring 1.5mm	1
L02	0C08024A	Washer 2mm	2
L03	0E00788A	BT Screw M2x8 Philips Pan Head (Black Chromate)	1
F04	**CA08339A**	**Head Base Ass'y** Serial No.: A12301001 –	**1**
01	GA02103A	E0K Erase Head	1
02	0C08158D	Erase Head Hold Plate	1
03	0C08166A	Erase Head Hold Plate Spring	1
04	0C08174D	Cassette Hold Spring	1
05	CA08003Q	Head Base Ass'y	1
06	0C08175A	Head Base L Spring	3
07	0B08949A	2P-H Connector	1
L01	0E00951A	Screw M1.7x7 Philips Pan Head (Black Chromate)	2

Schematic Ref. No.	Part No.	Description	Q'ty
L02	0E00909A	Screw M2x6 Philips Pan Head	3
L03	0E00117A	Washer 2mm	3
L04	0E00853A	BT Screw M2x3 Philips Pan Head	1
L05	0E00952A	Washer 1.7mm	2
F05	**CA08350A**	**Cassette Case Holder L Ass'y** Serial No.: A12301001 –	**1**
01	CA08326A	Cassette Case Holder L Sub Ass'y	1
02	0C08073C	Lid Arm A	1
03	0C08306A	Eject Arm Holder	1
04	0C08307A	Eject Arm A	1
05	0C08197C	Eject Arm B	1
06	0C08199B	Eject Arm Joint	1
07	0C08114A	Lid Arm Spring	1
08	0C08211C	Eject Arm Spring	1
L01	0E00837A	Stopper Ring 3mm	1
L02	0E00838A	Stopper Ring 4mm	1
L03	0E00865A	BT Screw M3x10 Philips Binding Head	2
F06	**CA08022A**	**Cassette Case Holder R Ass'y** Serial No.: A12301001 –	**1**
01	0C08133A	Eject Sensor	1
02	CA08044A	Cassette Case Holder R Sub Ass'y	1
L01	0E00840A	BT Screw M2x8 Philips Pan Head	2
F07	**CA08353A**	**Auto Shut-off Ass'y** Serial No.: A12301001 –	**1**
01	0C08047A	Shut-off Pulley A	1
02	0C08309A	Shut-off Pulley B	1
03	0C08088B	Shut-off Pulley Shaft	1
04	0C08207B	Shut-off Pulley Holder	1
05	BA04637A	Shut-off P.C B. Ass'y	1
F08	**CA08030A**	**Pneumatic Damper Ass'y** Serial No.: A12301001 –	**1**
01	0C08058C	Damper Piston	1
02	0C08102C	Damper Ring	1
03	0C08010C	Damper Plate	1
04	0C08059D	Sylinder	1
L01	0E00874A	Stopper Ring CS 2mm	1
H01	**CA08332A**	**P-8L Playback Head Ass'y** Serial No.: A12301001 –	**1**
01	CA08307A	Playback Head Plate Ass'y	1
02	GA02034A	P-8L Playback Head	1
03	0C08169D	Pad Lifter 54	1
04	0B08950A	4P-H Connector Ass'y	1
L01	0E00886A	Screw M1.7x6.5 Philips Pan Head	2
–	0M04232A	Label CN-21	1
H02	**CA08375A**	**R-8L Record Head Ass'y** Serial No.: A12305404 –	**1**
01	0C08308B	Record Head Plate	1
02	GA01050A	R-8L Record Head	1
03	0B02236A	4P-H Connector	1
L01	0E00887A	Screw M1.7x4 Philips Pan Head	2
–	0M04226A	Label CN-20	1
H02	**CA08330A**	**R-8L Record Head Ass'y** Serial Nos.: A12301001 – A12305403	**1**
01	0C08308B	Record Head Plate	1
02	GA01050A	R-8L Record Head	1
03	0B08951A	4P-H Connector	1
L01	0E00887A	Screw M1.7x4 Philips Pan Head	2
–	0M04226A	Label CN-20	1

8.21. P-RL Playback Head Ass'y (H01)

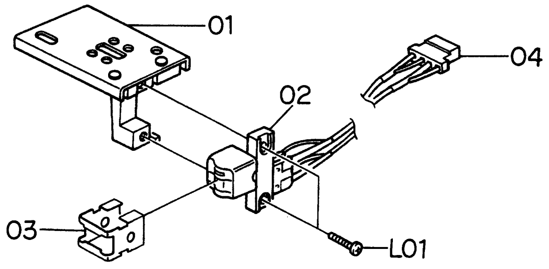


Fig. 8.21

8.22. R-8L Record Head Ass'y (H02)

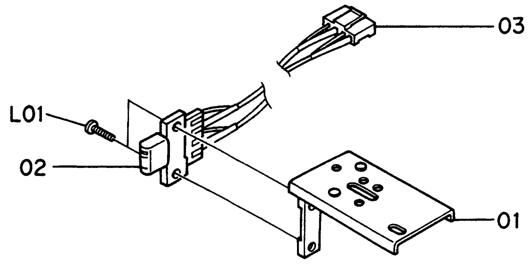


Fig. 8.22.1 Serial No.: A12305404 –

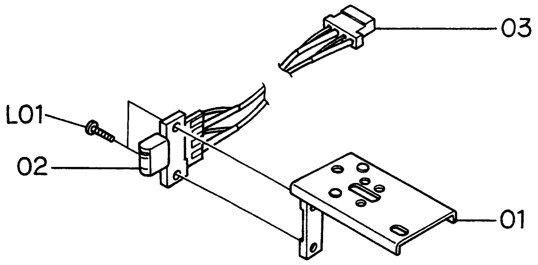


Fig. 8.22.2 Serial Nos.: A12301001 – A12305403

9. OVERALL TIMING CHART

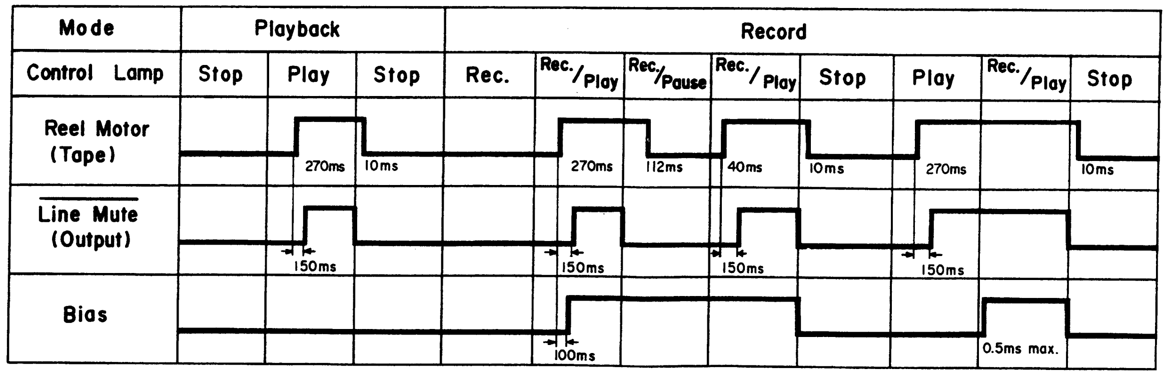


Fig. 9

10. BLOCK DIAGRAMS

10.1. Amplifier Section

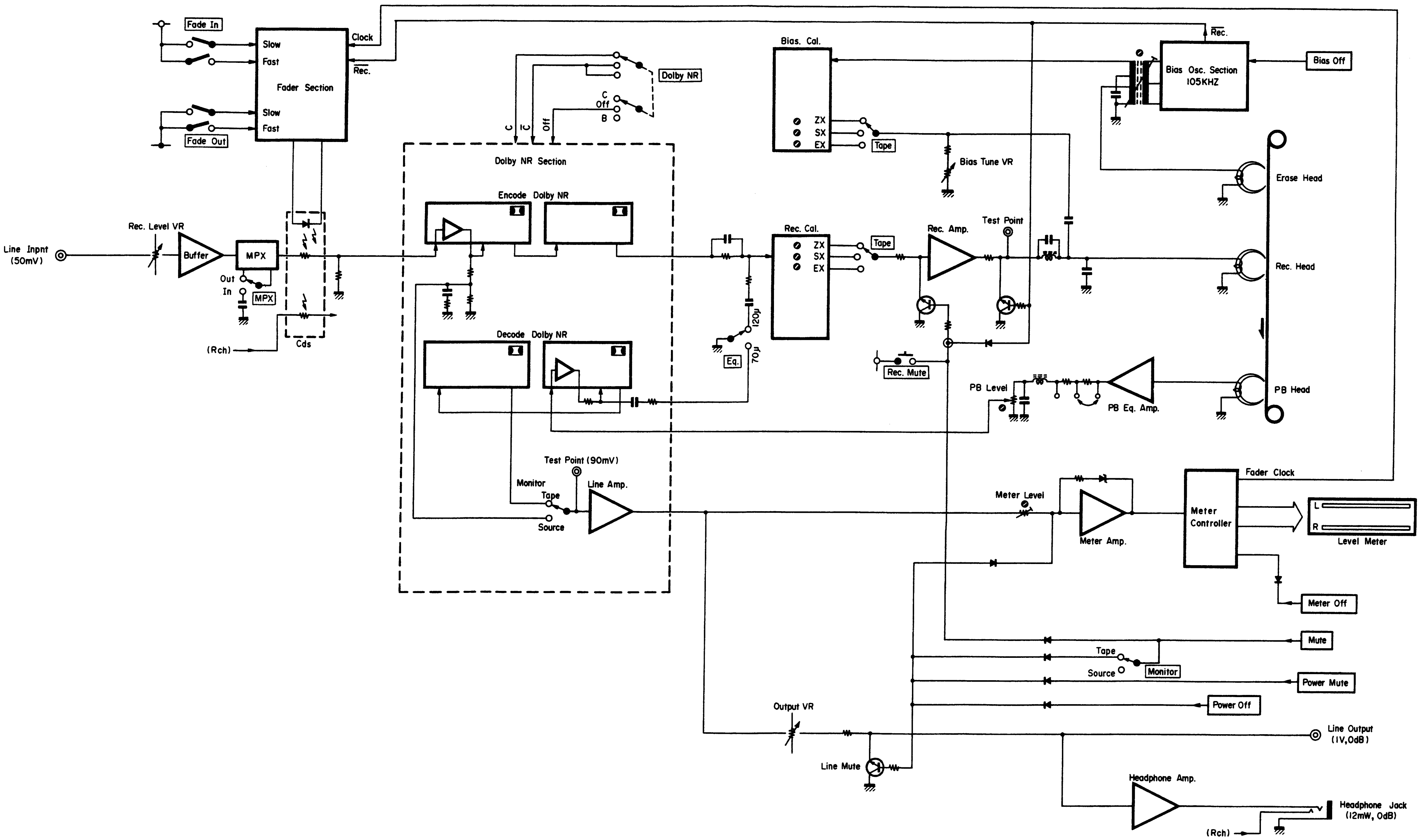

Fade In
Slow
Fast
Fader Section
Slow
Fast
Fade Out
Clock
Rec.
C
C
Off
C
Off
B
Dolby NR
Dolby NR Section
Encode Dolby NR
Decode Dolby NR
Line Inpnt
(50mV)
Rec. Level VR
Buffer
MPX
Out
In
MPX
(Rch)
Cds
Test Point (90mV)
Monitor
Tape
Source
Line Amp.
Eq.
120μ
70μ
Bias. Cal.
ZX
SX
EX
Tape
Bias Tune VR
Rec. Cal.
ZX
SX
EX
Tape
Rec. Amp.
Test Point
Rec. Mute
PB Level
PB Eq. Amp.
Rec.
Bias Osc. Section
105KHZ
Bias Off
Erase Head
Rec. Head
PB Head
Fader Clock
Meter Level
Meter Amp.
Meter
Controller
L
R
Level Meter
Meter Off
Mute
Tape
Source
Monitor
Power Mute
Power Off
Line Output
(1V,0dB)
Output VR
Line Mute
Headphone Amp.
Headphone Jack
(12mW, 0dB)
(Rch)

Fig. 10.1

10.2. Mechanism Control Section

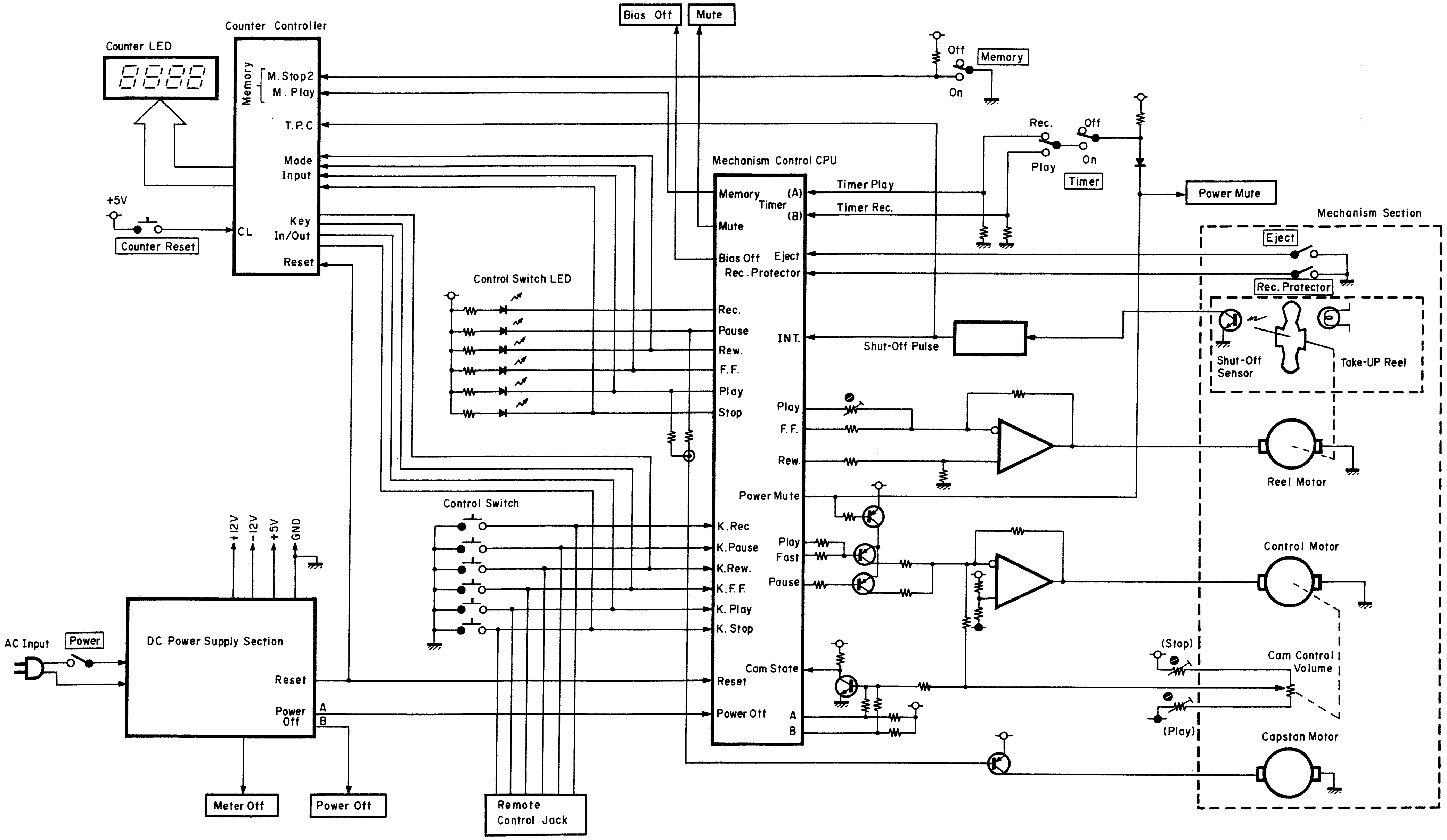

Counter LED
Counter Controller
Memory
M.Stop2
M. Play
T.P.C
Mode Input
Key In/Out
Reset
CL
+5V
Counter Reset
Bias Off
Mute
Off
On
Memory
Rec.
Off
Play
On
Timer
Power Mute
Mechanism Control CPU
Memory Timer (A) (B)
Timer Play
Timer Rec.
Mute
Bias Off
Eject
Rec. Protector
Mechanism Section
Eject
Rec. Protector
Control Switch LED
Rec.
Pause
Rew.
F.F.
Play
Stop
INT.
Shut-Off Pulse
Shut-Off Sensor
Take-UP Reel
Play
F.F.
Rew.
Reel Motor
Power Mute
Control Switch
K.Rec
K.Pause
K.Rew.
K.F.F.
K. Play
K. Stop
Play
Fast
Pause
Control Motor
+12V
-12V
+5V
GND
AC Input
Power
DC Power Supply Section
Reset
Power Off
A
B
Cam State
Reset
Power Off
A
B
(Stop)
Cam Control Volume
(Play)
Capstan Motor
Meter Off
Power Off
Remote Control Jack

Fig. 10.2

11. EQ. AMP. FREQUENCY RESPONSE

11.1. Playback Frequency Response

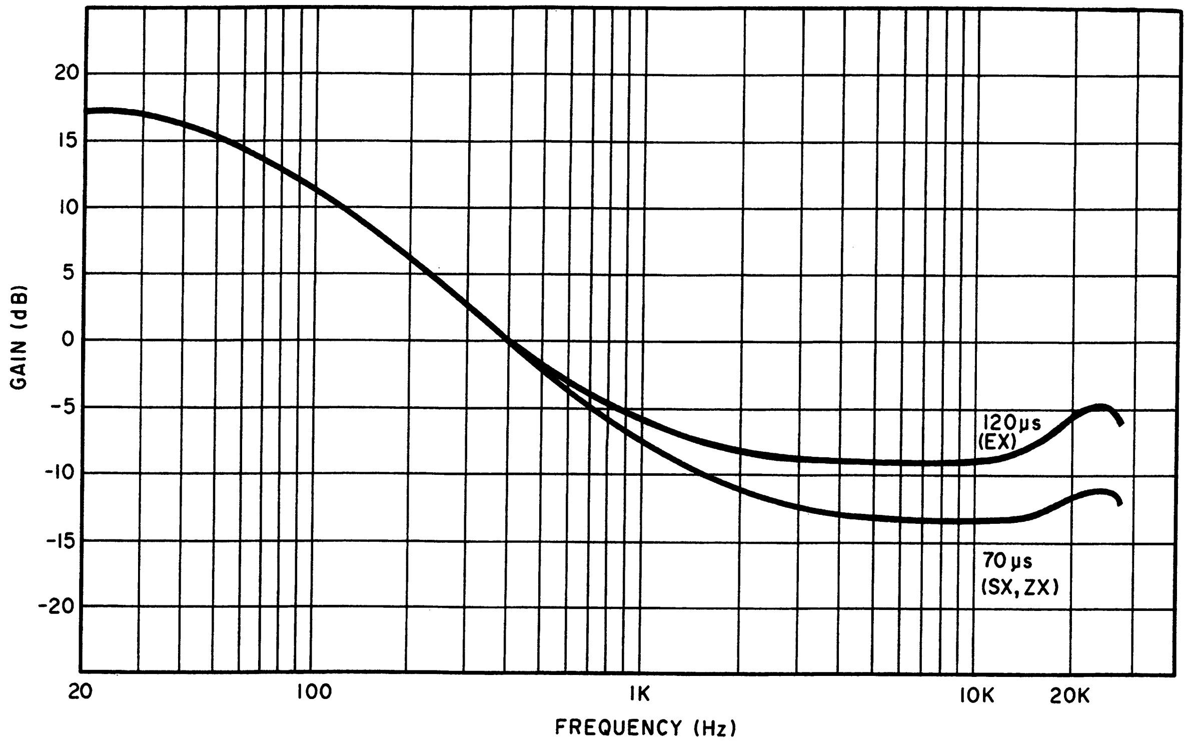


Fig. 11.1

11.2. Record Current Frequency Response

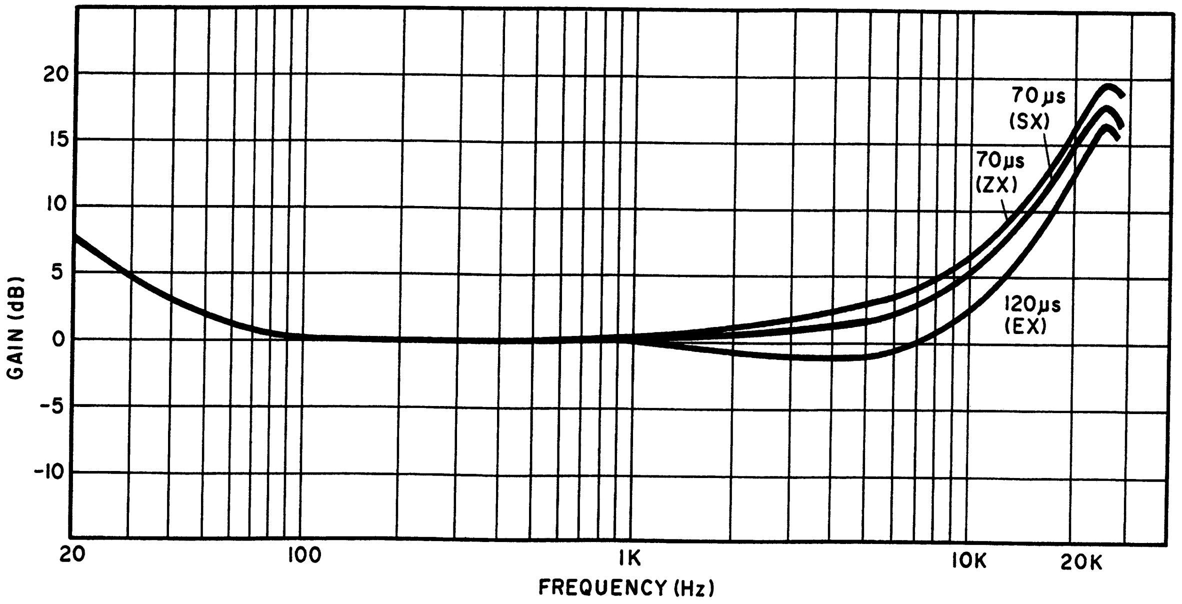


Fig. 11.2

12. WIRING DIAGRAMS

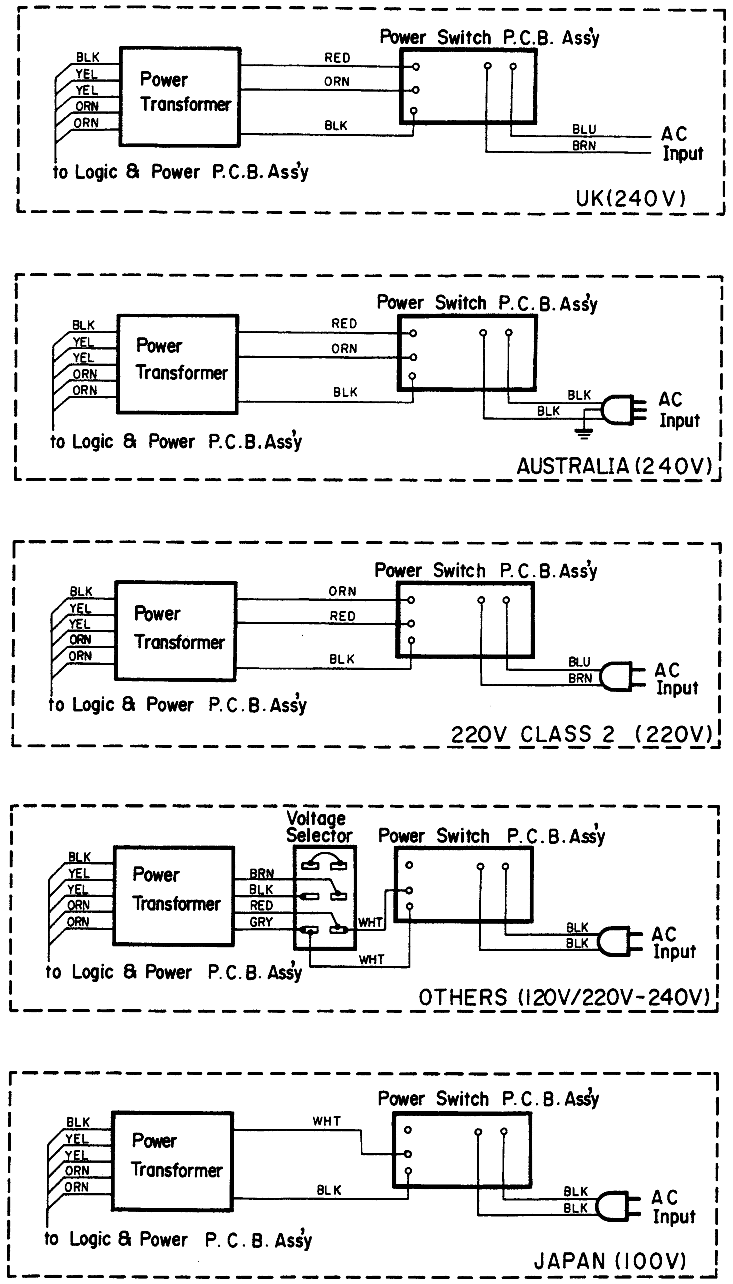

Power Switch P.C.B. Ass'y
BLK
YEL
YEL
ORN
ORN
Power Transformer
RED
ORN
BLK
BLU
BRN
AC Input
to Logic & Power P.C.B. Ass'y
UK(240V)
Power Switch P.C.B. Ass'y
BLK
YEL
YEL
ORN
ORN
Power Transformer
RED
ORN
BLK
BLK
BLK
AC Input
to Logic & Power P.C.B. Ass'y
AUSTRALIA (240V)
Power Switch P.C.B. Ass'y
BLK
YEL
YEL
ORN
ORN
Power Transformer
ORN
RED
BLK
BLU
BRN
AC Input
to Logic & Power P.C.B. Ass'y
220V CLASS 2 (220V)
Voltage Selector
Power Switch P.C.B. Ass'y
BLK
YEL
YEL
ORN
ORN
Power Transformer
BRN
BLK
RED
GRY
WHT
WHT
BLK
BLK
AC Input
to Logic & Power P.C.B. Ass'y
OTHERS (120V/220V-240V)
Power Switch P.C.B. Ass'y
BLK
YEL
YEL
ORN
ORN
Power Transformer
WHT
BLK
BLK
BLK
AC Input
to Logic & Power P.C.B. Ass'y
JAPAN (100V)

Fig. 12.1

Notes: 1. Table of wire colors

BLK – Black
BLU – Blue
ORN – Orange
GRY – Gray
GRN – Green
RED – Red
BRN – Brown
YEL – Yellow
WHT – White
VIO – Violet

2. Wire tube color is shown in ( ).
3. Component side view of the P.C.B. is illustrated unless otherwise specified.

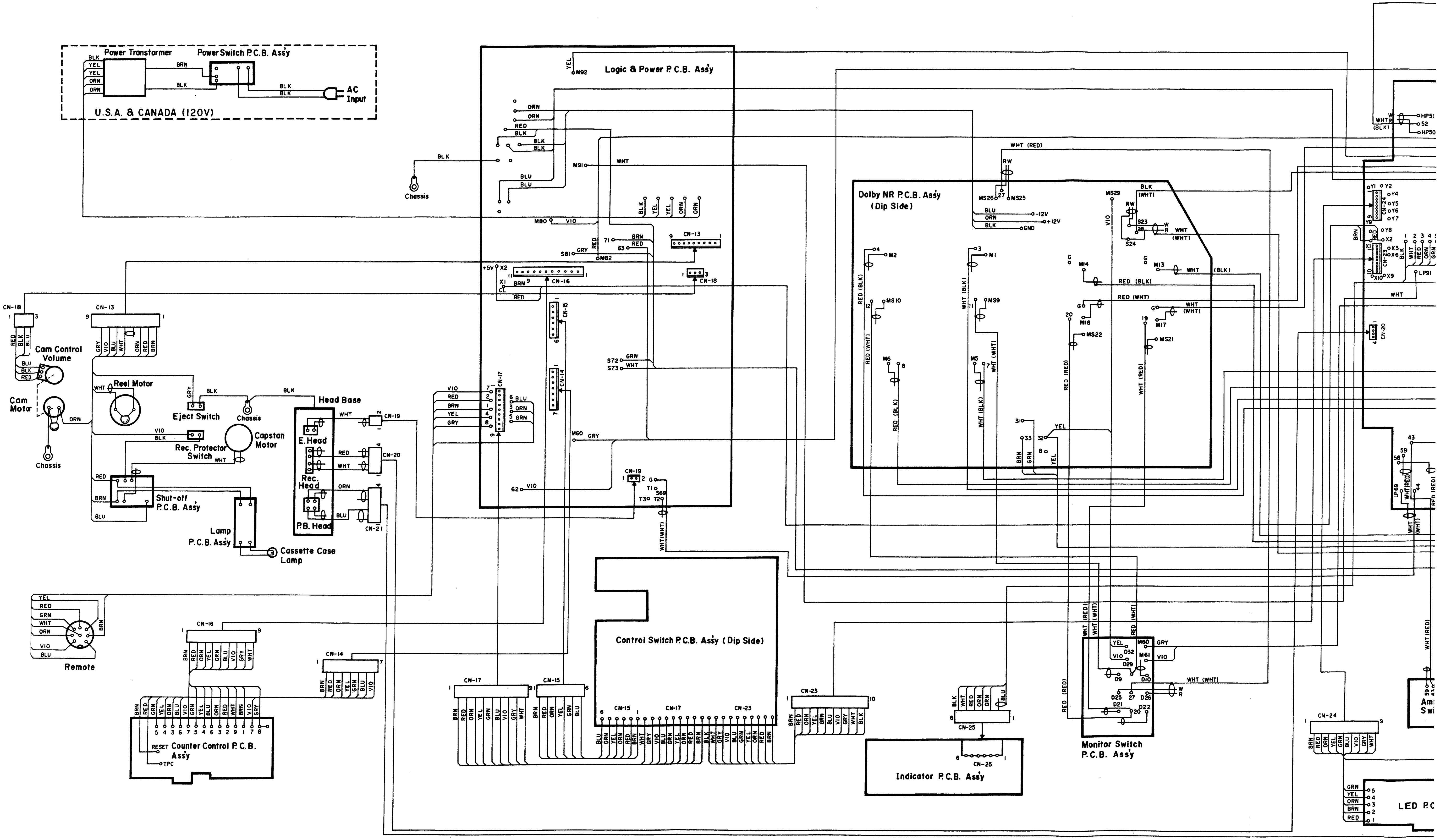

Power Transformer
Power Switch P.C.B. Ass'y
AC Input
U.S.A. & CANADA (120V)
Logic & Power P.C.B. Ass'y
Chassis
Dolby NR P.C.B. Ass'y (Dip Side)
CN-18
CN-13
Cam Control Volume
Cam Motor
Reel Motor
Eject Switch
Head Base
Capstan Motor
Rec. Protector Switch
E. Head
Rec. Head
P.B. Head
Shut-off P.C.B. Ass'y
Lamp P.C.B. Ass'y
Cassette Case Lamp
CN-19
CN-20
CN-21
CN-16
CN-15
CN-14
CN-17
CN-23
CN-24
CN-25
CN-26
Remote
Counter Control P.C.B. Ass'y
RESET
TPC
Control Switch P.C.B. Ass'y (Dip Side)
Indicator P.C.B. Ass'y
Monitor Switch P.C.B. Ass'y
LED P.C
HP51
HP50
M92
M91
M80
M82
M60
S72
S73
S81
X1
X2
+5V
MS25
MS26
MS29
MS10
MS9
MS22
MS21
M1
M2
M5
M6
M13
M14
M17
M18
S23
S24
RW
-12V
+12V
GND
D9
D10
D21
D22
D25
D26
D29
D32
M61
LP69
LP91

Fig. 12.2.1 Serial No.: A12305404 –

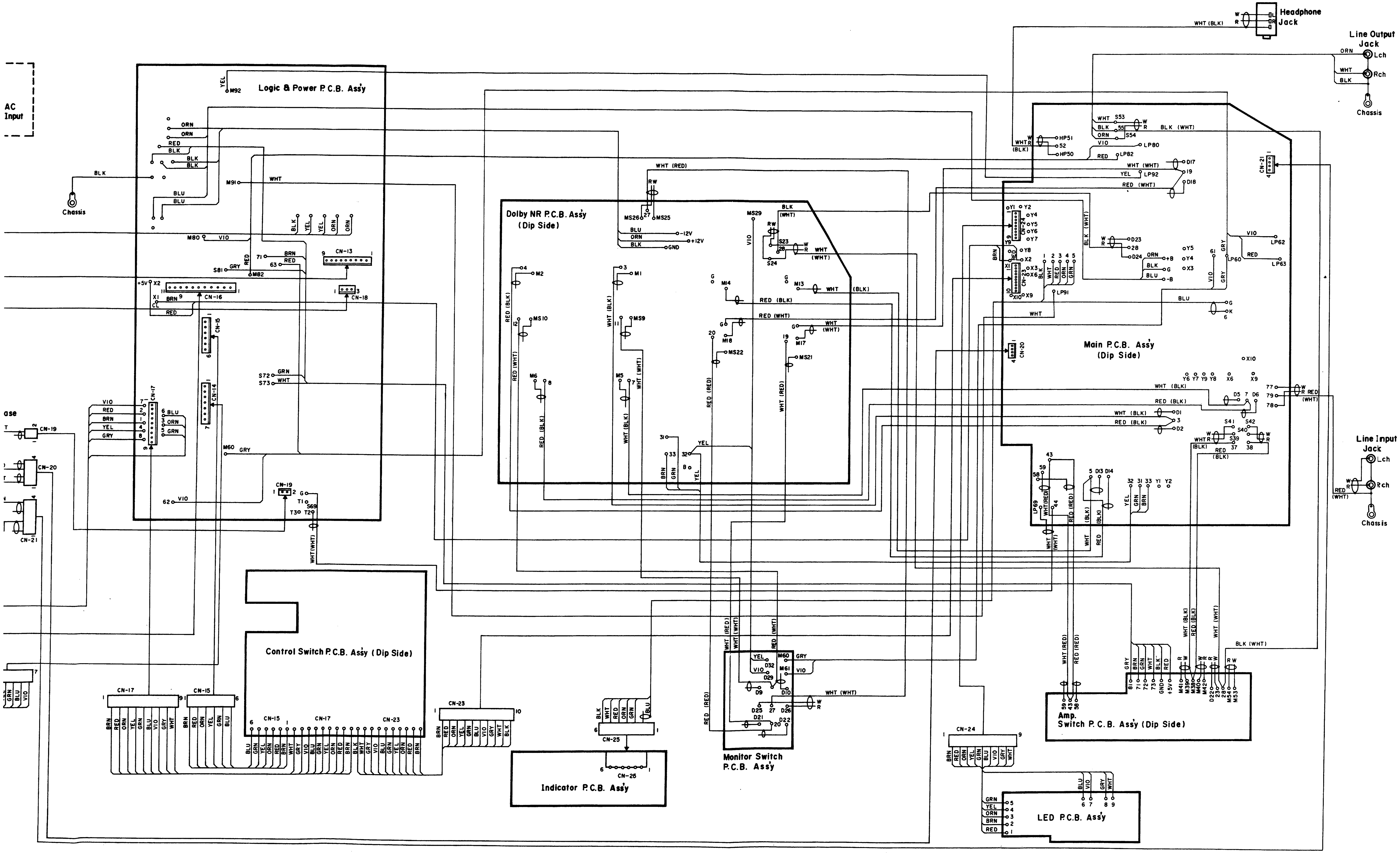

AC Input
Chassis
Logic & Power P.C.B. Ass'y
Dolby NR P.C.B. Ass'y (Dip Side)
Main P.C.B. Ass'y (Dip Side)
Headphone Jack
Line Output Jack
Lch
Rch
Chassis
Line Input Jack
Lch
Rch
Chassis
Control Switch P.C.B. Ass'y (Dip Side)
Indicator P.C.B. Ass'y
Monitor Switch P.C.B. Ass'y
Amp. Switch P.C.B. Ass'y (Dip Side)
LED P.C.B. Ass'y
CN-13
CN-14
CN-15
CN-16
CN-17
CN-18
CN-19
CN-20
CN-21
CN-23
CN-24
CN-25
CN-26

Fig. 12.2.1 Serial No.: A12305404 –

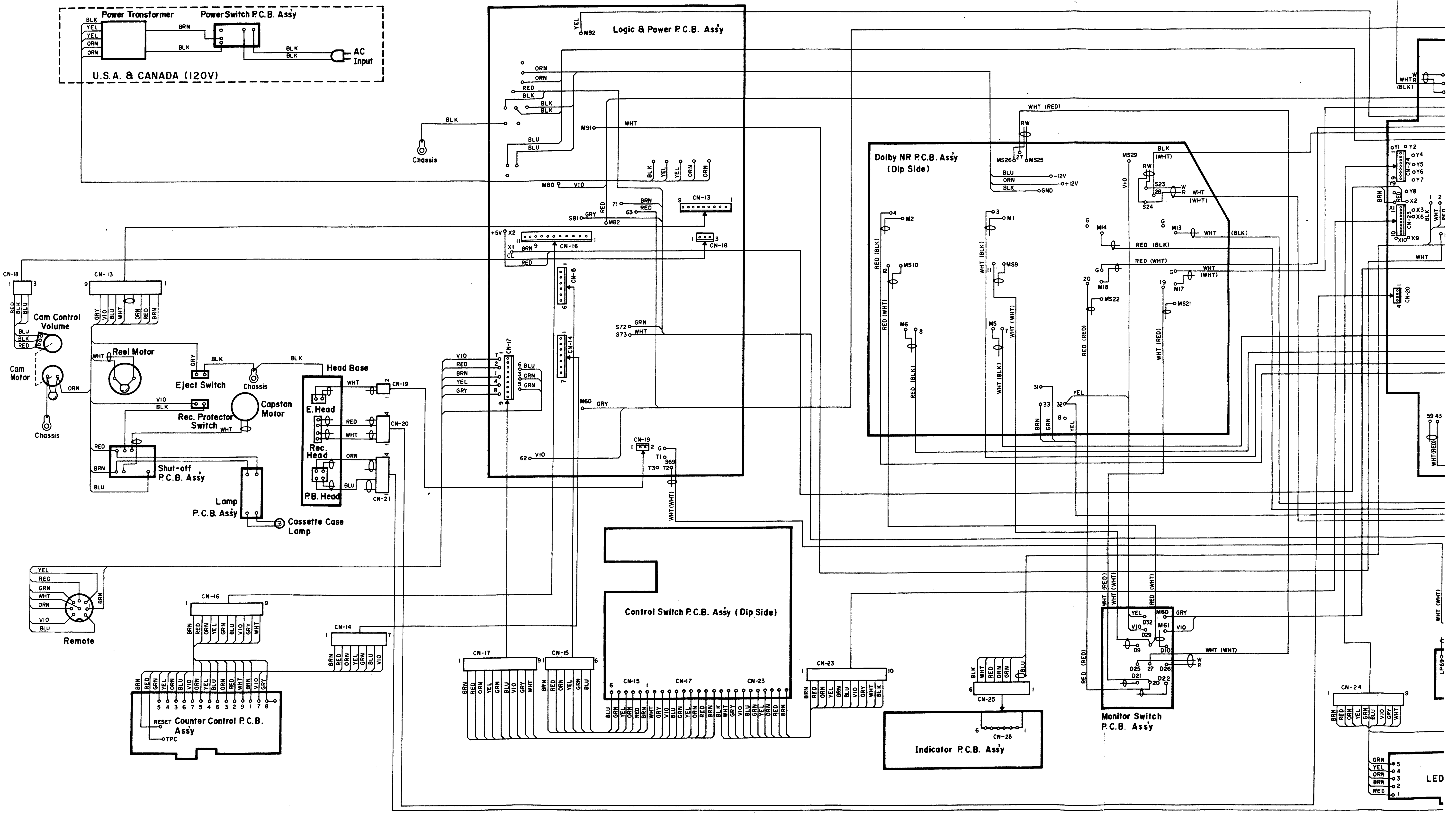

Power Transformer
Power Switch P.C.B. Ass'y
AC Input
U.S.A. & CANADA (120V)
Logic & Power P.C.B. Ass'y
Chassis
Dolby NR P.C.B. Ass'y (Dip Side)
Cam Control Volume
Reel Motor
Cam Motor
Eject Switch
Head Base
E. Head
Rec. Head
P.B. Head
Capstan Motor
Rec. Protector Switch
Shut-off P.C.B. Ass'y
Lamp P.C.B. Ass'y
Cassette Case Lamp
Remote
Counter Control P.C.B. Ass'y
Control Switch P.C.B. Ass'y (Dip Side)
Indicator P.C.B. Ass'y
Monitor Switch P.C.B. Ass'y
LED
CN-13
CN-14
CN-15
CN-16
CN-17
CN-18
CN-19
CN-20
CN-21
CN-23
CN-24
CN-25
CN-26

Fig. 12.2.2 Serial Nos.: A12301001 – A12305403

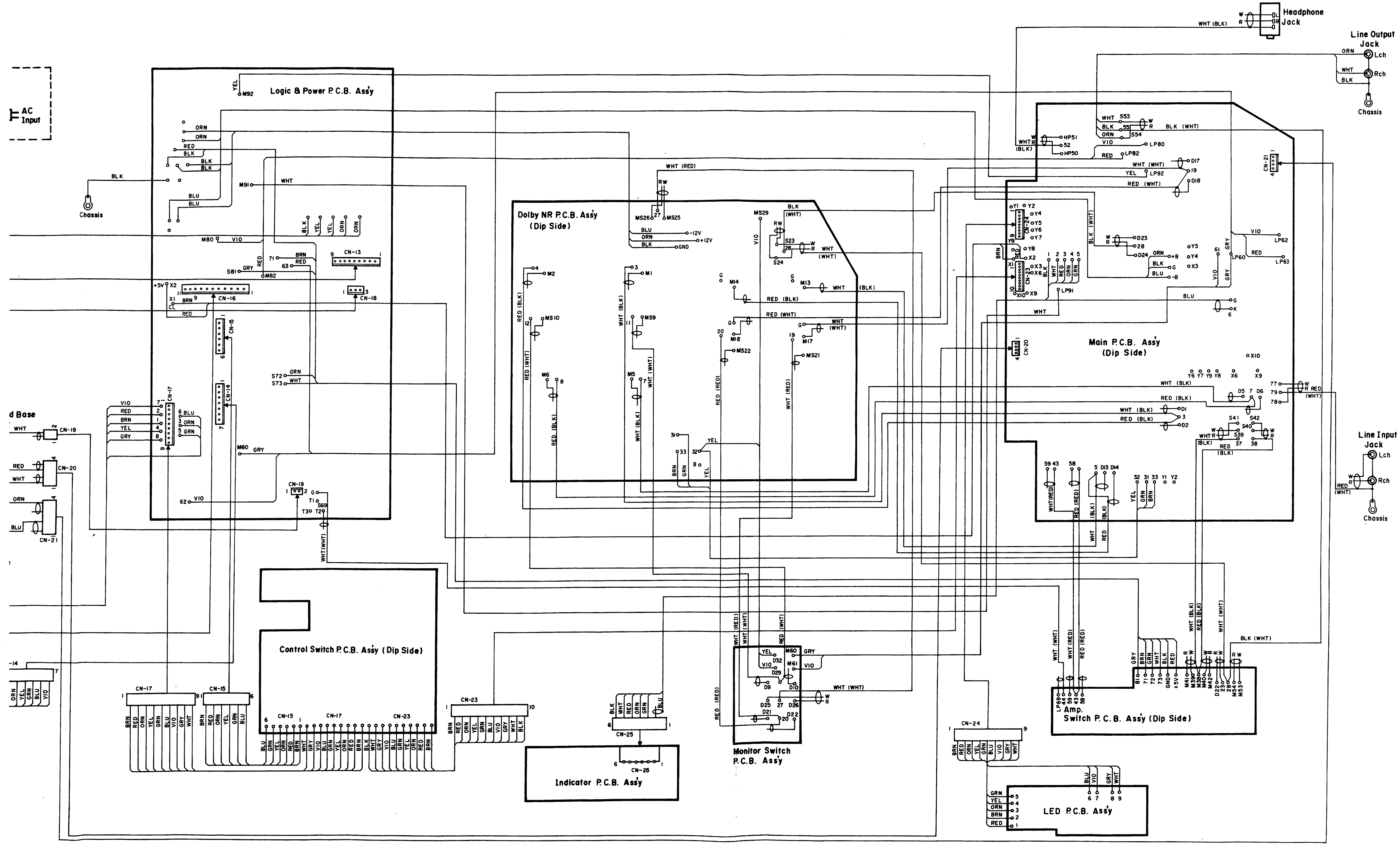

Headphone Jack
Line Output Jack
Lch
Rch
Chassis
AC Input
Logic & Power P.C.B. Ass'y
Dolby NR P.C.B. Ass'y (Dip Side)
Main P.C.B. Ass'y (Dip Side)
Line Input Jack
d Base
CN-19
CN-20
CN-21
Control Switch P.C.B. Ass'y (Dip Side)
Indicator P.C.B. Ass'y
Monitor Switch P.C.B. Ass'y
Amp. Switch P.C.B. Ass'y (Dip Side)
LED P.C.B. Ass'y
CN-13
CN-14
CN-15
CN-16
CN-17
CN-18
CN-23
CN-24
CN-25
CN-26

Fig. 12.2.2 Serial Nos.: A12301001 – A12305403

13. SCHEMATIC DIAGRAMS

13.1. Mechanism Control Section

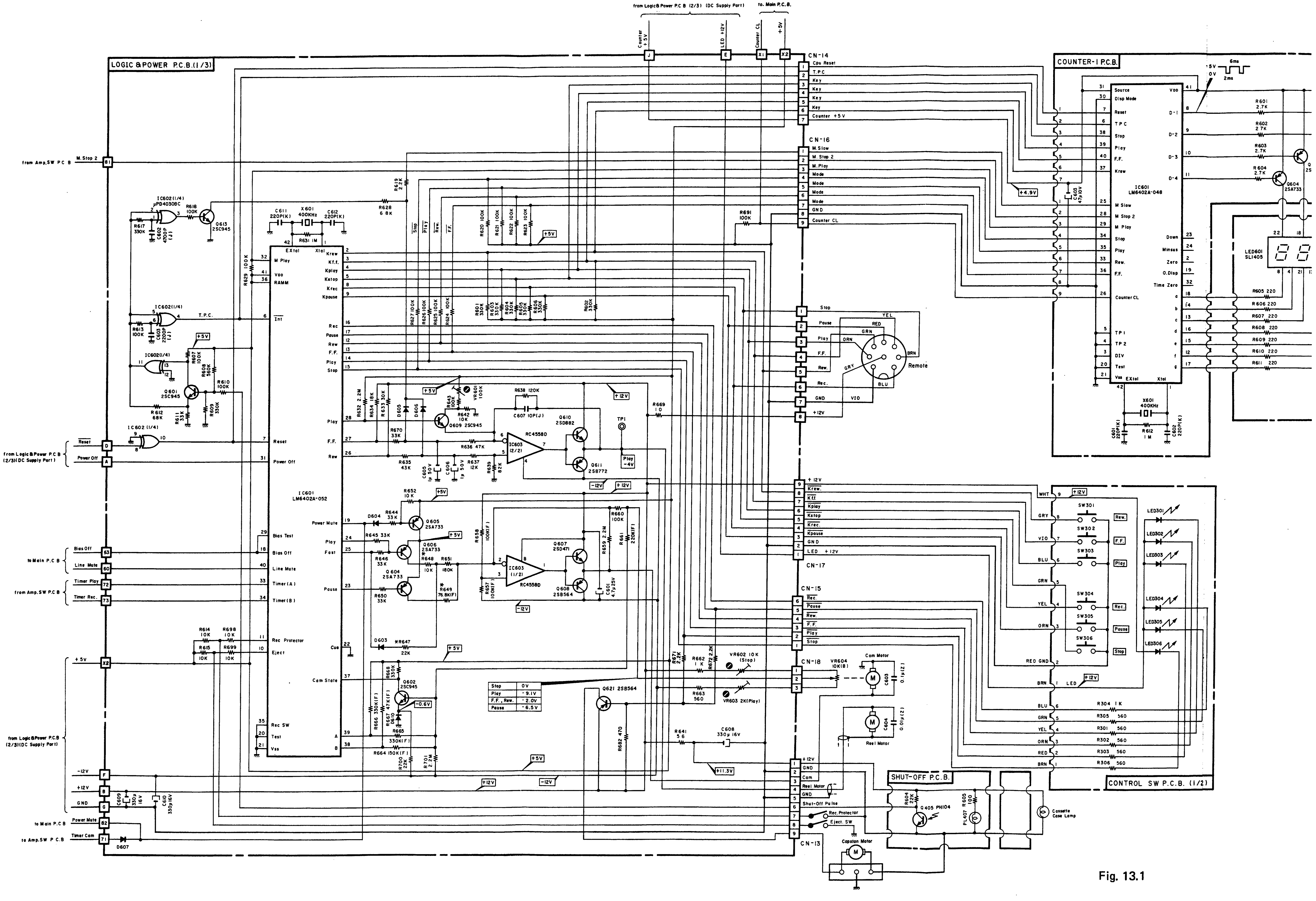

from Logic&Power P.C.B (2/3) (DC Supply Port)
to Main P.C.B.
Counter +5V
LED +12V
Counter CL
+5V
LOGIC & POWER P.C.B. (1/3)
CN-14
Cpu Reset
T.P.C
Key
Counter +5V
CN-16
M.Slow
M. Stop 2
M. Play
Mode
GND
Counter CL
COUNTER-1 P.C.B.
IC601
LM6402A-048
LED601
SL1405
from Amp.SW P.C.B
M. Stop 2
IC602 (1/4)
μPD4030BC
Q613
2SC945
C611 220P(K)
X601 400KHz
C612 220P(K)
R631 1M
IC601
LM6402A-052
M Play
Vdd
RAMM
Int
Reset
Power Off
Bias Test
Bias Off
Line Mute
Timer (A)
Timer (B)
Rec Protector
Eject
Rec SW
Test
Vss
Krew
Kf.f.
Kplay
Kstop
Krec
Kpause
Rec
Pause
Rew
F.F.
Play
Stop
Power Mute
Fast
Cue
Cam State
T.P.C.
Q601
2SC945
Q609 2SC945
IC603 (2/2)
RC4558D
Q610
2SD882
Q611
2SB772
TP1
Play -4V
Q605
2SA733
Q606
2SA733
Q604
2SA733
IC603 (1/2)
RC4558D
Q607
2SD471
Q608
2SB564
Q602
2SC945
Q621 2SB564
-0.6V
Stop 0V
Play -9.1V
F.F., Rew. -2.0V
Pause -6.5V
Remote
YEL
RED
GRN
ORN
BRN
GRY
BLU
VIO
CN-17
CN-15
CN-18
CN-13
VR602 10K (Stop)
VR603 2K (Play)
VR604 10K(B)
Cam Motor
Reel Motor
Capstan Motor
Shut-Off Pulse
Rec. Protector
Eject. SW
SHUT-OFF P.C.B.
Q405 PH104
PL407
Cassette Case Lamp
CONTROL SW P.C.B. (1/2)
SW301
SW302
SW303
SW304
SW305
SW306
LED301
LED302
LED303
LED304
LED305
LED306
from Logic&Power P.C.B (2/3) (DC Supply Port)
to Main P.C.B
from Amp.SW P.C.B
Bias Off
Line Mute
Timer Play
Timer Rec.
Power Mute
Timer Com
D607
+5V
-12V
+12V
GND
+11.3V
+4.9V

Fig. 13.1

Not

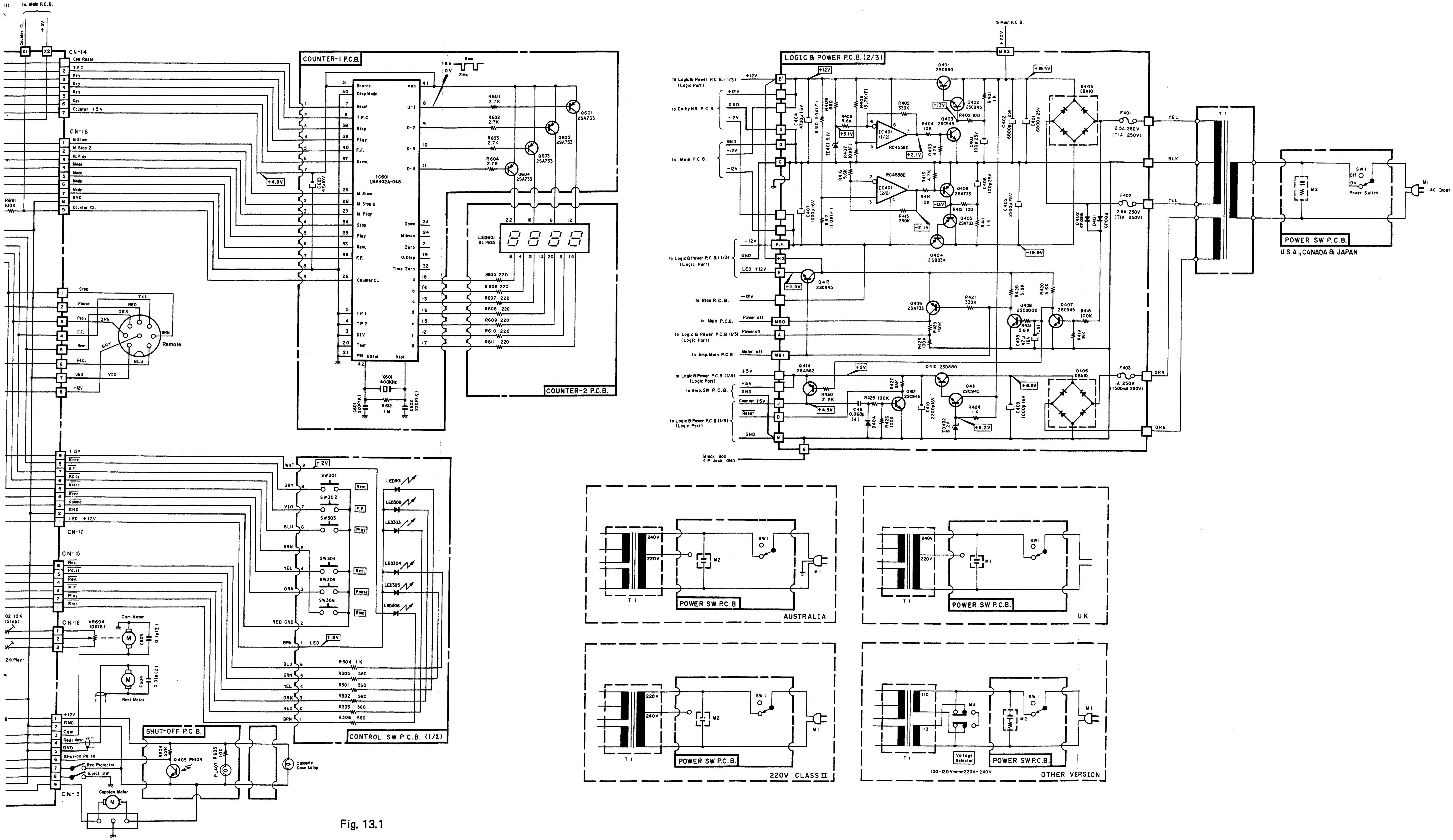
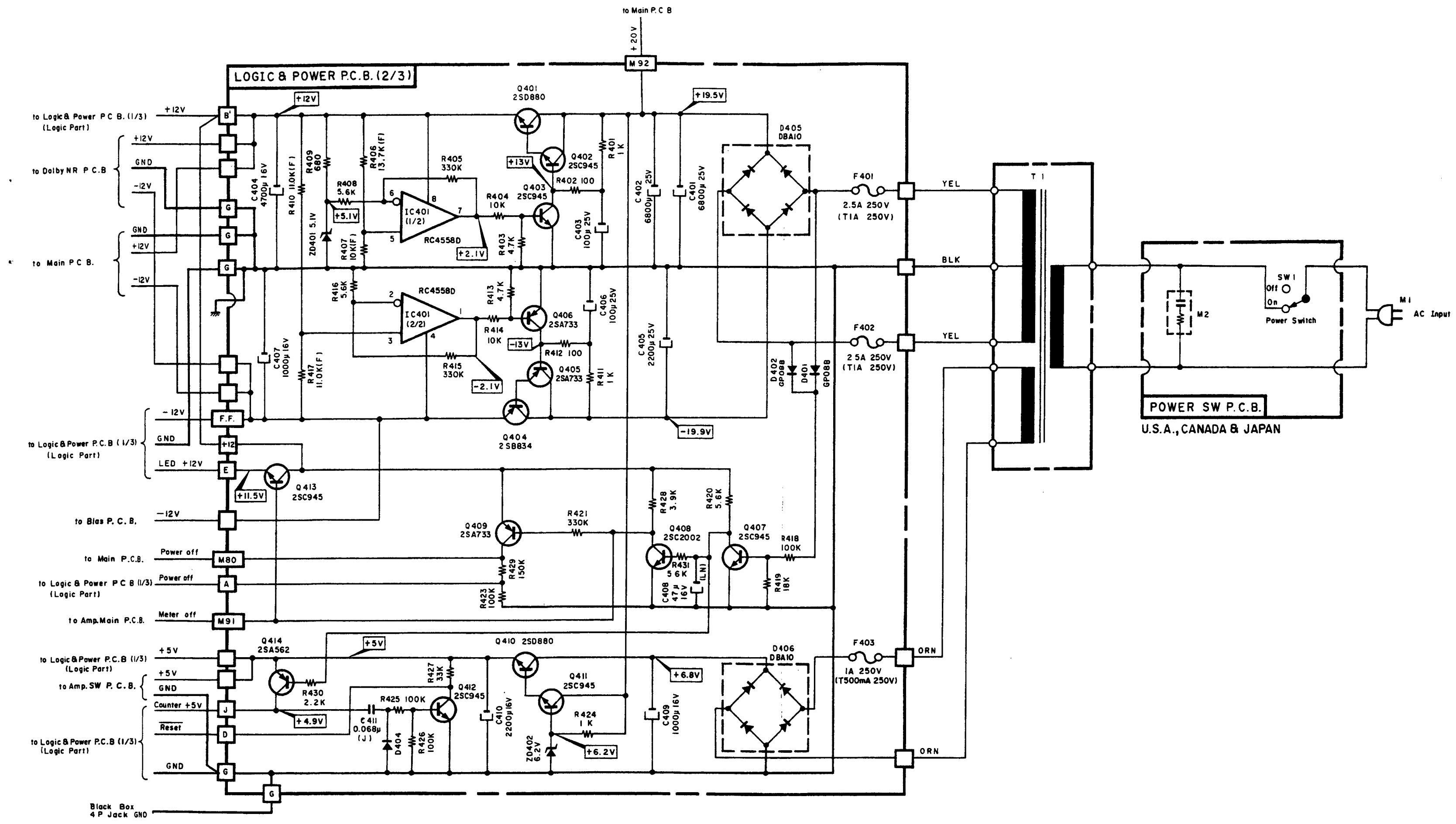
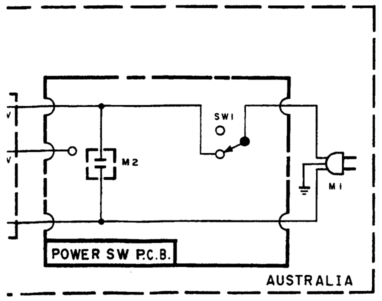

to Main P.C.B.
Counter CL
+5V
CN-14
Cpu Reset
T.P.C
Key
Counter +5V
CN-16
M.Slow
M.Stop 2
M.Play
Mode
GND
Counter CL
R691 100K
COUNTER-1 P.C.B.
IC601 LM6402A-048
Source
Disp Mode
Reset
Stop
Play
F.F.
Krew.
Rew.
Counter CL
Time Zero
X601 400KHz
R612 1M
C601 220P(K)
C602 220P(K)
C603 47µ 10V
+4.9V
6ms
2ms
R601 2.7K
R602 2.7K
R603 2.7K
R604 2.7K
Q601 2SA733
Q602 2SA733
Q603 2SA733
Q604 2SA733
LED601 SL1405
R605 220
R606 220
R607 220
R608 220
R609 220
R610 220
R611 220
COUNTER-2 P.C.B.
Remote
YEL
RED
GRN
ORN
BRN
GRY
BLU
VIO
Stop
Pause
Play
F.F.
Rew
Rec.
GND
+12V
CN-17
Krew.
Kff
Kplay
Kstop
Krec.
Kpause
LED +12V
SW301
SW302
SW303
SW304
SW305
SW306
LED301
LED302
LED303
LED304
LED305
LED306
R304 1K
R305 560
R301 560
R302 560
R303 560
R306 560
CONTROL SW P.C.B. (1/2)
CN-15
Rec
Pause
Rew.
F.F.
Play
Stop
CN-18
VR604 10K(B)
Cam Motor
C603 0.1µ(Z)
C604 0.01µ(Z)
Reel Motor
Cam
Reel Motor
Shut-Off Pulse
Rec. Protector
Eject. SW
CN-13
Capstan Motor
SHUT-OFF P.C.B.
R604 22K
Q405 PH104
PL407
R605 100
Cassette Case Lamp
to Main P.C.B.
+20V
M92
LOGIC & POWER P.C.B. (2/3)
to Logic & Power P.C.B. (1/3) (Logic Part)
to Dolby NR P.C.B.
to Main P.C.B.
to Bias P.C.B.
to Amp.Main P.C.B.
to Amp.SW P.C.B.
Power off
Meter off
Black Box 4P Jack GND
Q401 2SD880
Q402 2SC945
Q403 2SC945
Q404 2SB834
Q405 2SA733
Q406 2SA733
Q407 2SC945
Q408 2SC2002
Q409 2SA733
Q410 2SD880
Q411 2SC945
Q412 2SC945
Q413 2SC945
Q414 2SA562
IC401 (1/2) RC4558D
IC401 (2/2) RC4558D
C404 4700µ 16V
ZD401 5.1V
ZD402 6.2V
D405 DBA10
D406 DBA10
D401 GP08B
D402 GP08B
D404
F401 2.5A 250V (T1A 250V)
F402 2.5A 250V (T1A 250V)
F403 1A 250V (T500mA 250V)
+12V
+19.5V
+13V
+5.1V
+2.1V
-13V
-2.1V
-19.9V
+11.5V
+5V
+4.9V
+6.8V
+6.2V
T1
YEL
BLK
ORN
SW1
Off
On
Power Switch
M1
AC Input
M2
POWER SW P.C.B.
U.S.A., CANADA & JAPAN
240V
220V
AUSTRALIA
UK
220V CLASS II
110
M3
Voltage Selector
100-120V ↔ 220V-240V
OTHER VERSION

Fig. 13.1

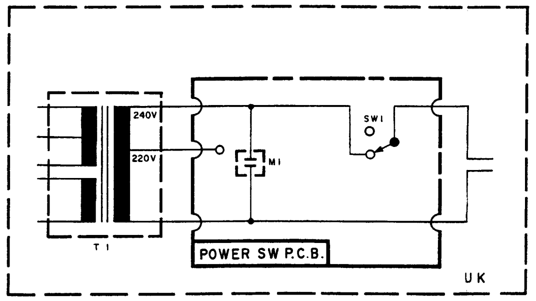
Notes.: 1. Diode is 1SS53, 1S953, or 1S1555 unless otherwise specified.
2. Resistor and capacitor marked with * show typical value.



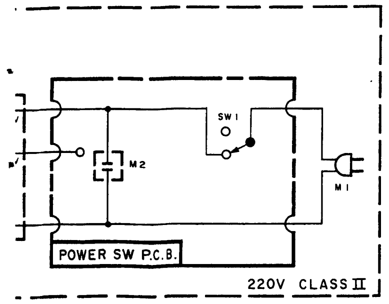
LOGIC & POWER P.C.B. (2/3)
to Main P.C.B
+20V
M92
Q401 2SD880
Q402 2SC945
Q403 2SC945
Q404 2SB834
Q405 2SA733
Q406 2SA733
Q407 2SC945
Q408 2SC2002
Q409 2SA733
Q410 2SD880
Q411 2SC945
Q412 2SC945
Q413 2SC945
Q414 2SA562
IC401 (1/2) RC4558D
IC401 (2/2) RC4558D
D405 DBA10
D406 DBA10
F401 2.5A 250V (T1A 250V)
F402 2.5A 250V (T1A 250V)
F403 1A 250V (T500mA 250V)
C401 6800μ 25V
C402 6800μ 25V
C404 4700μ 16V
C405 2200μ 25V
C409 1000μ 16V
C410 2200μ 16V
C411 0.068μ (J)
ZD401 5.1V
ZD402 6.2V
+12V
+19.5V
+13V
+5.1V
+2.1V
-2.1V
-13V
-19.9V
+11.5V
+5V
+6.8V
+4.9V
+6.2V
YEL
BLK
ORN
T1
to Logic & Power P.C.B. (1/3) (Logic Part)
to Dolby NR P.C.B
to Main P.C.B.
to Bias P.C.B.
to Amp.Main P.C.B.
to Amp.SW P.C.B.
Power off
Meter off
Counter +5V
Reset
GND
Black Box 4P Jack GND
POWER SW P.C.B.
SW1 Off On Power Switch
M2
M1 AC Input
U.S.A., CANADA & JAPAN



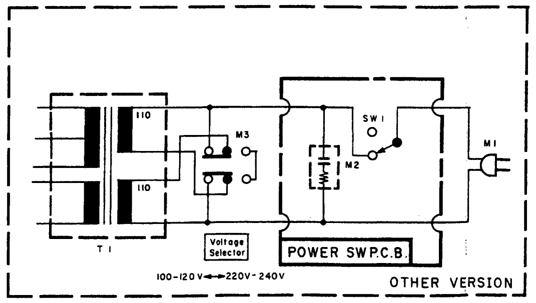
SW1
M2
M1
POWER SW P.C.B.
AUSTRALIA



240V
220V
T1
SW1
M1
POWER SW P.C.B.
UK



SW1
M2
M1
POWER SW P.C.B.
220V CLASS II



110
110
T1
M3
Voltage Selector
100-120V ↔ 220V-240V
SW1
M2
M1
POWER SW P.C.B.
OTHER VERSION

13.2. Amplifier Section

13.2.1. Amplifier Section (U.S.A. & Canada)

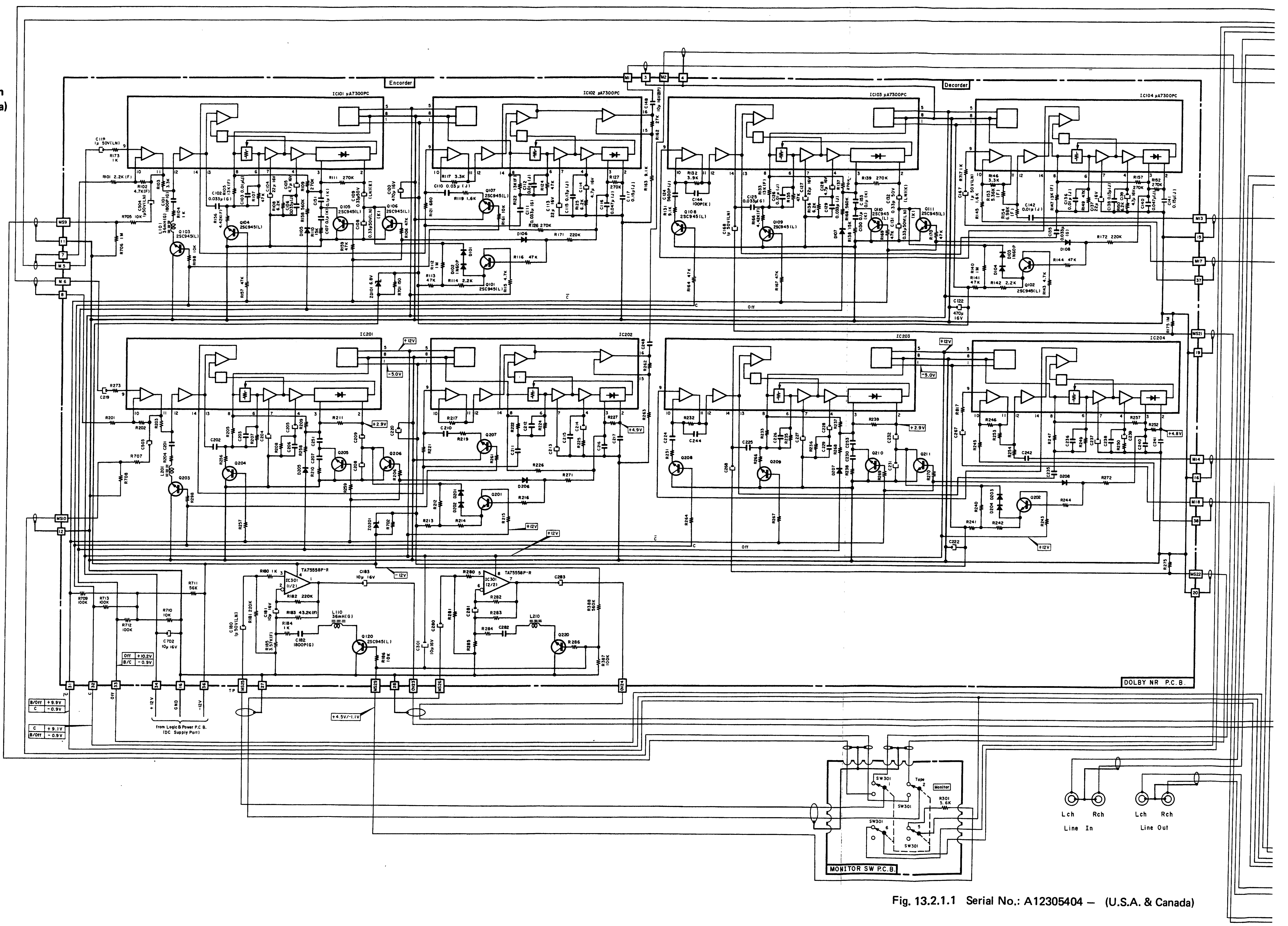

Encorder
Decorder
IC101 µA7300PC
IC102 µA7300PC
IC103 µA7300PC
IC104 µA7300PC
IC201
IC202
IC203
IC204
IC301 (1/2) TA75558P-R
IC301 (2/2) TA75558P-R
Q101 2SC945(L)
Q102 2SC945(L)
Q103 2SC945(L)
Q104 2SC945(L)
Q105 2SC945(L)
Q106 2SC945(L)
Q107 2SC945(L)
Q108 2SC945(L)
Q109 2SC945(L)
Q110 2SC945(L)
Q111 2SC945(L)
Q120 2SC945(L)
+12V
-5.0V
+2.9V
+4.9V
+4.8V
-12V
Off +10.2V
B/C -0.9V
B/Off +9.9V
C -0.9V
C +9.1V
B/Off -0.9V
+4.5V/-1.1V
+12V
GND
-12V
from Logic & Power P.C.B. (DC Supply Part)
TP
DOLBY NR P.C.B.
MONITOR SW P.C.B.
SW301
Tape
Monitor
R301 3.6K
Lch
Rch
Line In
Lch
Rch
Line Out

Fig. 13.2.1.1 Serial No.: A12305404 – (U.S.A. & Canada)

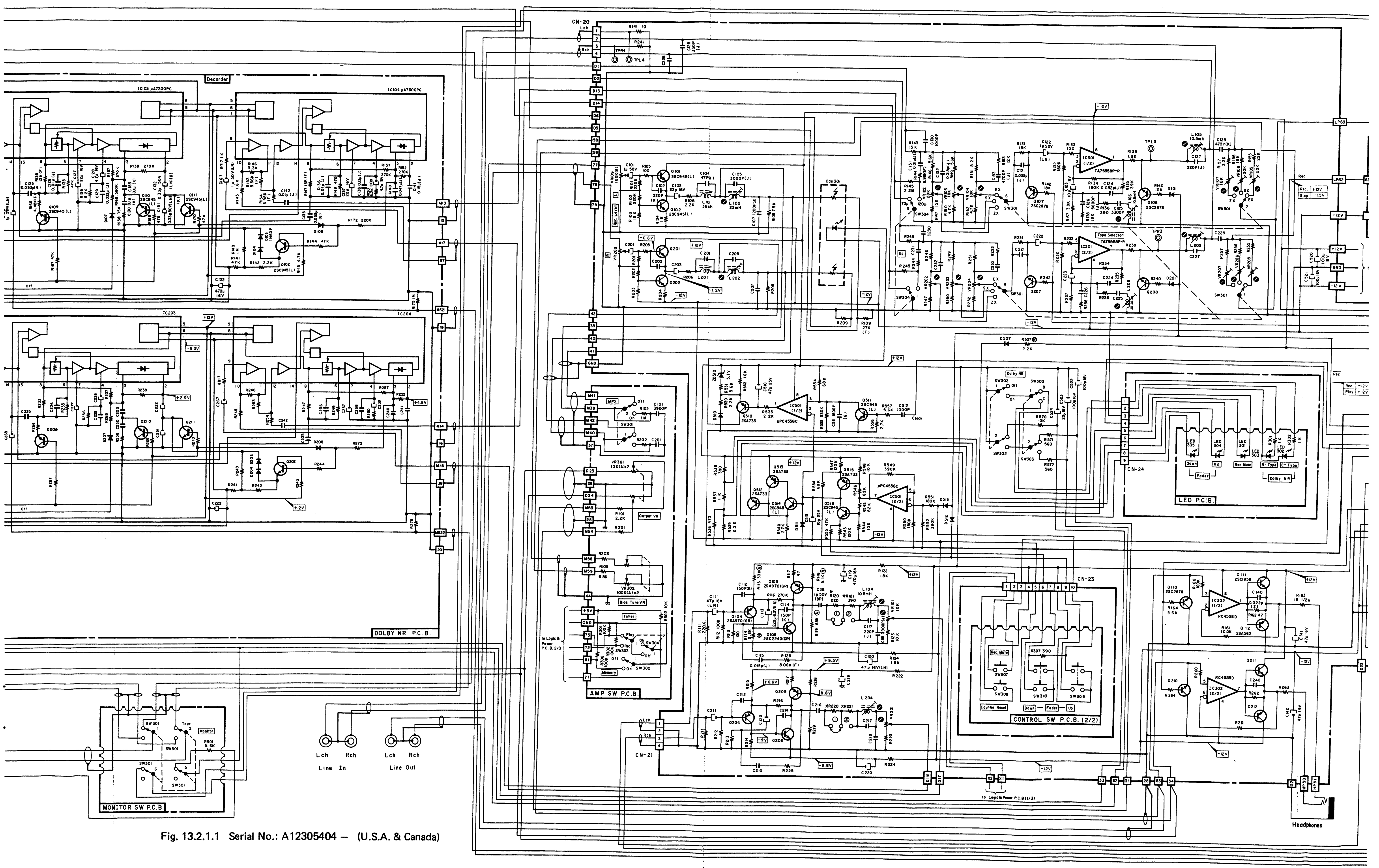
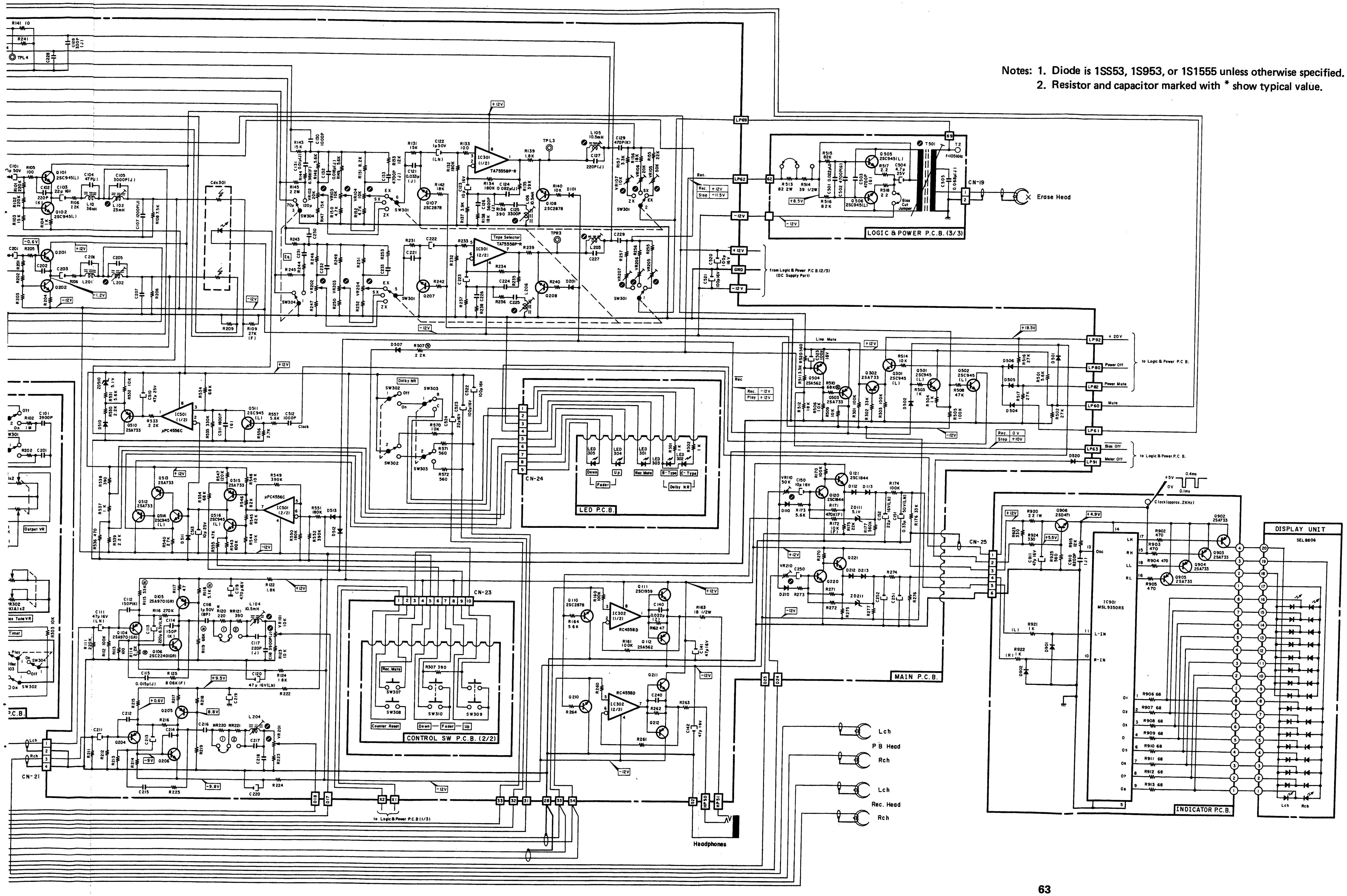

Decorder
IC103 μA7300PC
IC104 μA7300PC
IC203
IC204
DOLBY NR P.C.B.
CN-20
Lch
Rch
TPR4
TPL4
Rec Level
Eq
Tape Selector
IC301 (1/2) TA75558P-R
IC301 (2/2) TA75558P-R
TPL3
TPR3
SW304
SW301
Cds301
IC501 (1/2) μPC4556C
IC501 (2/2) μPC4556C
Clock
MPX
AMP SW P.C.B.
Output VR
Bias Tune VR
Timer
Memory
to Logic & Power P.C.B. 2/3
Dolby NR
SW302
SW303
LED 305
LED 304
LED 301
LED 303
LED 302
Down
Up
Fader
Rec Mute
B Type
C Type
LED P.C.B.
CN-24
CN-23
Rec. Mute
Counter Reset
SW308
SW310
SW309
CONTROL SW P.C.B. (2/2)
CN-21
to Logic & Power P.C.B. (1/3)
IC302 (1/2) RC4558D
IC302 RC4558D
Headphones
Rec
Play
Stop
Tape
Monitor
SW301
MONITOR SW P.C.B.
Lch
Rch
Line In
Lch
Rch
Line Out

Fig. 13.2.1.1 Serial No.: A12305404 — (U.S.A. & Canada)

Notes: 1. Diode is 1SS53, 1S953, or 1S1555 unless otherwise specified.
2. Resistor and capacitor marked with * show typical value.


LOGIC & POWER P.C.B. (3/3)
Erase Head
T501
CN-19
from Logic & Power P.C.B.(2/3) (DC Supply Part)
IC301 (1/2) TA75558P-R
IC301 (2/2) TA75558P-R
Tape Selector
SW301
SW304
Cds301
TPL3
TPR3
TPL4
IC501 (1/2) µPC4556C
IC501 (2/2) µPC4556C
Clock
Dolby NR
SW302
SW303
CN-24
LED P.C.B.
Down
Up
Rec Mute
B-Type
C-Type
Fader
Dolby NR
Line Mute
to Logic & Power P.C.B.
Power Off
Power Mute
Mute
Bias Off
Meter Off
+20V
Rec. +12V
Stop -11.5V
Rec. -12V
Play +12V
Rec. 0V
Stop +10V
CN-25
MAIN P.C.B.
CN-23
CONTROL SW P.C.B. (2/2)
Rec. Mute
Counter Reset
SW307
SW308
SW310
SW309
IC302 (1/2) RC4558D
IC302 (2/2) RC4558D
CN-21
Lch
Rch
to Logic & Power P.C.B.(1/3)
P B Head
Rec. Head
Headphones
Clock (approx. 2KHz)
0.4ms
0.1ms
IC901 MSL9350RS
INDICATOR P.C.B.
DISPLAY UNIT
SEL8806
Output VR
Timer
Bias Tune VR

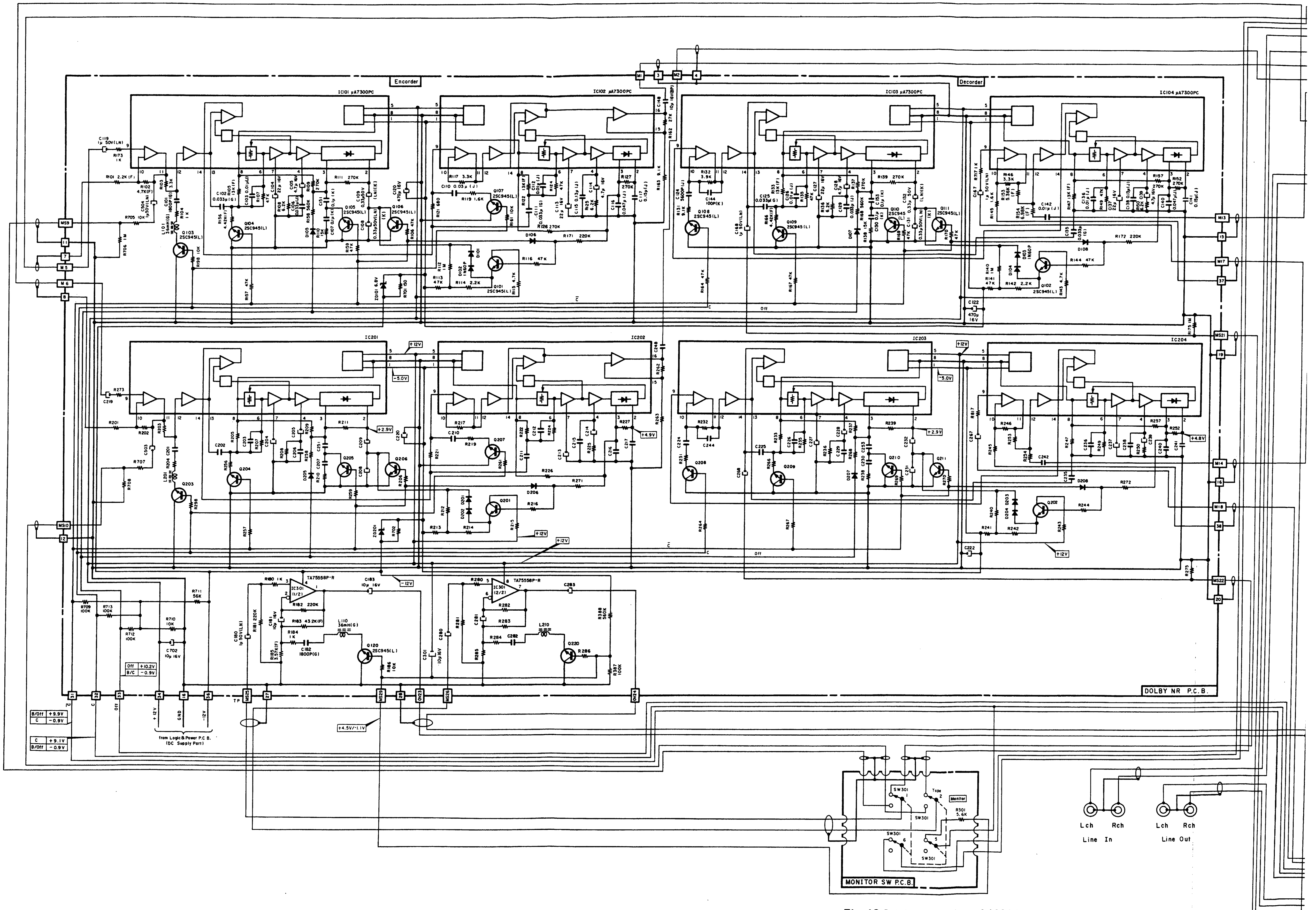

Encorder
Decorder
IC101 μA7300PC
IC102 μA7300PC
IC103 μA7300PC
IC104 μA7300PC
IC201
IC202
IC203
IC204
IC301 TA75558P-R
2SC945(L)
+12V
-5.0V
-12V
+2.9V
+4.9V
+4.8V
B/Off +9.9V
C -0.9V
C +9.1V
B/Off -0.9V
Off +10.2V
B/C -0.9V
+4.5V/-1.1V
from Logic & Power P.C.B. (DC Supply Part)
+12V
GND
-12V
TP
DOLBY NR P.C.B.
MONITOR SW P.C.B.
SW301
Tape
Monitor
R301 5.6K
Lch
Rch
Line In
Lch
Rch
Line Out

Fig. 13.2.1.2 Serial Nos.: A12301001 – A12305403 (U.S.A. & Canada)

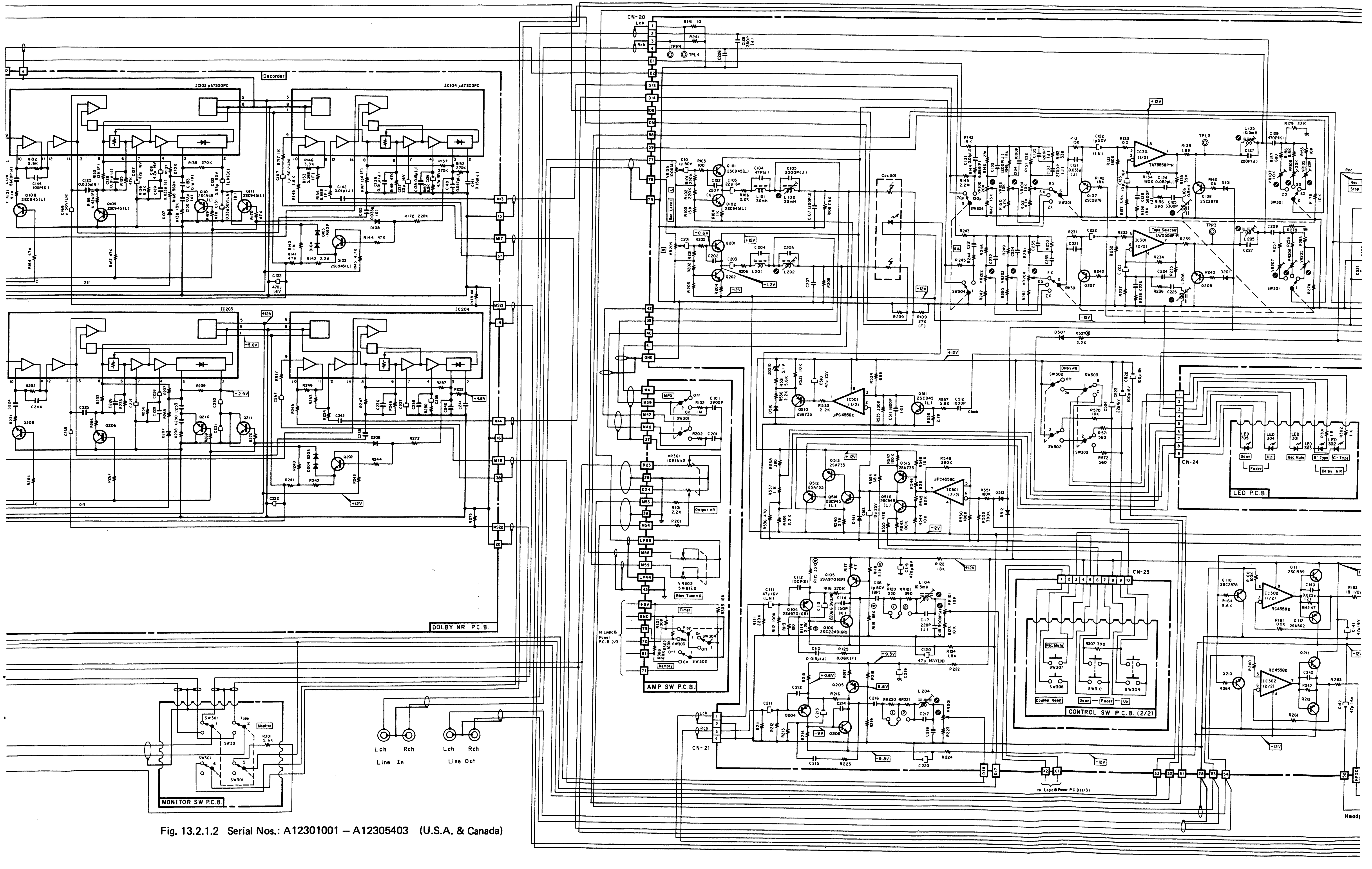
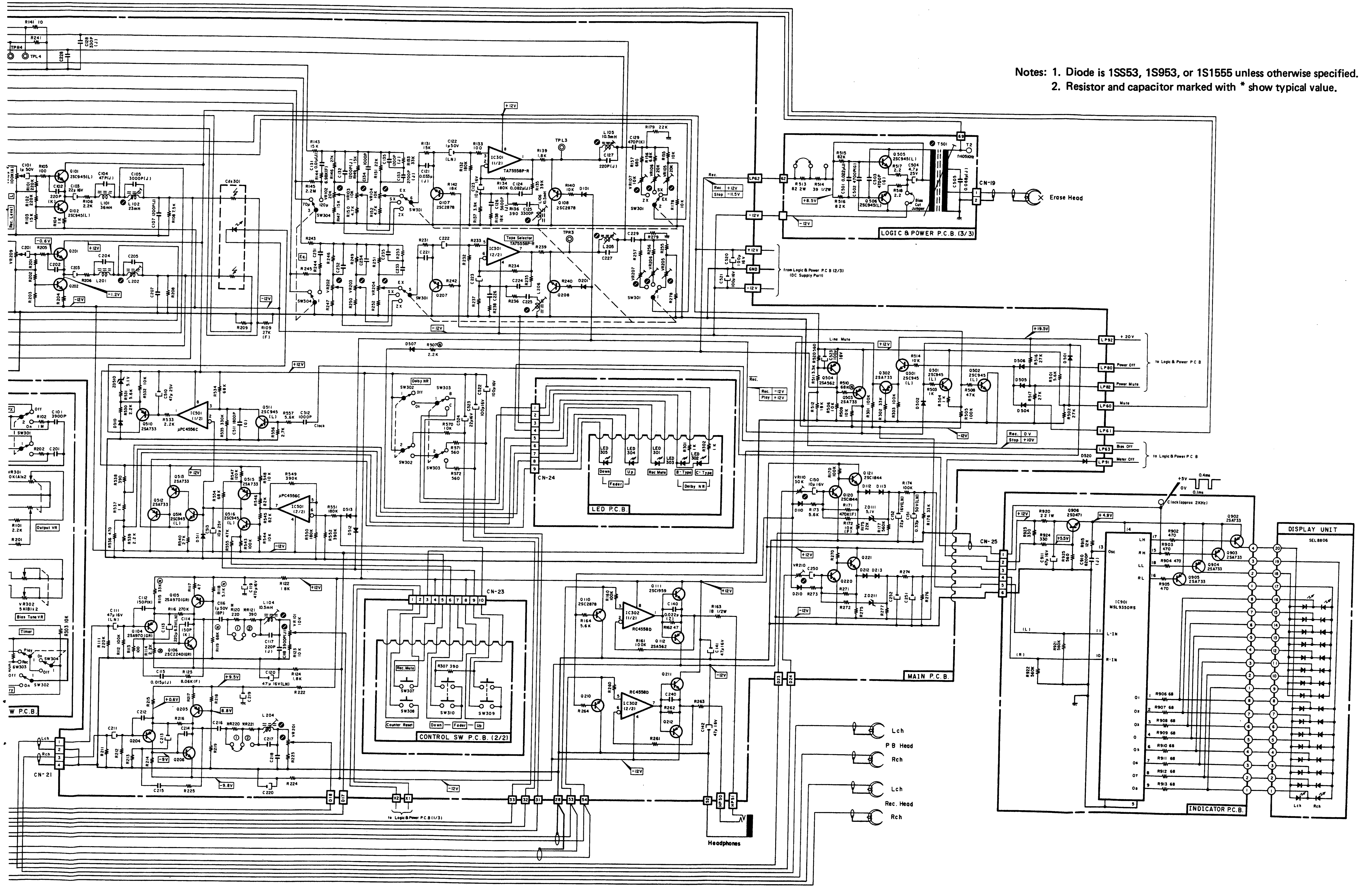

CN-20
Decorder
IC103 μA7300PC
IC104 μA7300PC
IC203
IC204
DOLBY NR P.C.B.
Rec. Level
MPX
Output VR
Bias Tune VR
Timer
Memory
to Logic & Power P.C.B 2/3
AMP SW P.C.B.
Monitor
MONITOR SW P.C.B.
Lch Rch
Line In
Lch Rch
Line Out
CN-21
IC301 TA7555BP-R
Tape Selector
IC501 μPC4556C
Clock
Dolby NR
CN-24
LED P.C.B.
Rec Mute
B-Type
C-Type
CN-23
Rec. Mute
Counter Reset
Down
Fader
Up
CONTROL SW P.C.B. (2/2)
to Logic & Power P.C.B (1/3)
IC302 RC4558D
Headp

Fig. 13.2.1.2 Serial Nos.: A12301001 – A12305403 (U.S.A. & Canada)

Notes: 1. Diode is 1SS53, 1S953, or 1S1555 unless otherwise specified.
2. Resistor and capacitor marked with * show typical value.


LOGIC & POWER P.C.B. (3/3)
CN-19
Erase Head
T501
Bias Cut Jumper
from Logic & Power P.C.B (2/3) (DC Supply Part)
IC301 (1/2)
IC301 (2/2)
TA7555BP-R
Tape Selector
TPL3
TPR3
SW301
SW304
Eq
Cds 301
IC501 (1/2)
IC501 (2/2)
µPC4556C
Clock
Dolby NR
SW302
SW303
CN-24
LED P.C.B.
LED 305
LED 304
LED 301
LED 303
LED 302
Down
Up
Rec Mute
B - Type
C - Type
Fader
Dolby NR
Line Mute
+20V
Power Off
Power Mute
Mute
Bias Off
Meter Off
to Logic & Power P.C.B
LP92
LP80
LP82
LP60
LP61
LP63
LP91
LP62
CN-23
Rec. Mute
Counter Reset
SW306
SW307
SW308
SW309
SW310
Down
Fader
Up
CONTROL SW P.C.B. (2/2)
IC302 (1/2)
IC302 (2/2)
RC4558D
MAIN P.C.B.
CN-25
Clock (approx 2KHz)
IC901
MSL9350RS
INDICATOR P.C.B.
DISPLAY UNIT
SEL8806
Lch
Rch
PB Head
Rec. Head
Headphones
CN-21
to Logic & Power P.C.B (1/3)
Output VR
Bias Tune VR
Timer
Play
Rec
Off
W P.C.B.
Rec. Level

13.2.2. Amplifier Section (UK, Australia, 220V Class 2, Others & Japan)

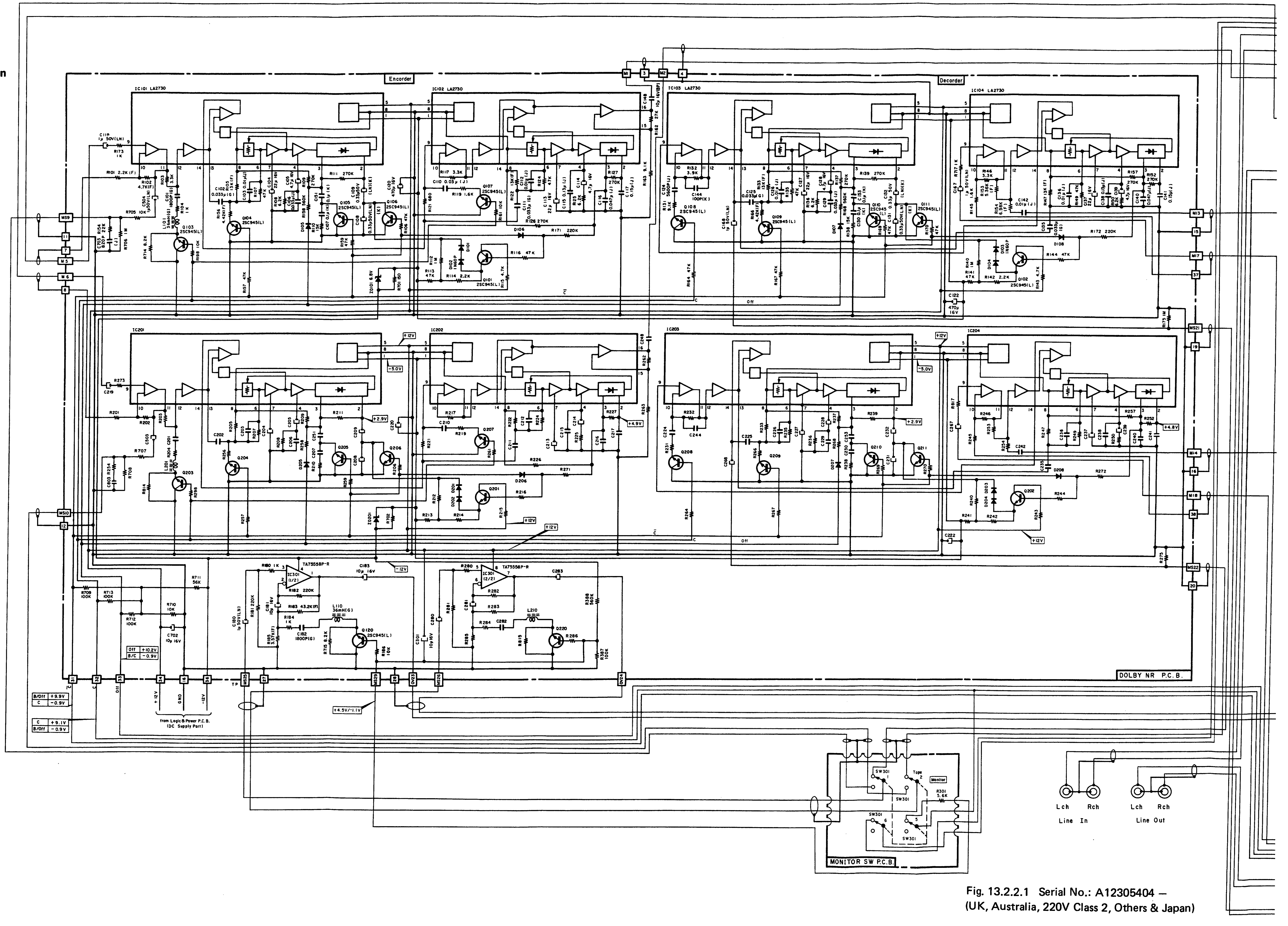

Encorder
Decorder
IC101 LA2730
IC102 LA2730
IC103 LA2730
IC104 LA2730
IC201
IC202
IC203
IC204
IC301 (1/2)
IC301 (2/2)
TA75558P-R
DOLBY NR P.C.B.
MONITOR SW P.C.B.
SW301
Tape
Monitor
R301 5.6K
Lch
Rch
Line In
Lch
Rch
Line Out
from Logic & Power P.C.B. (DC Supply Part)
+12V
GND
-12V
B/Off +9.9V
C -0.9V
C +9.1V
B/Off -0.9V
Off +10.2V
B/C -0.9V
+4.5V/-1.1V
-5.0V
+2.9V
+4.9V
+4.8V

Fig. 13.2.2.1 Serial No.: A12305404 –
(UK, Australia, 220V Class 2, Others & Japan)

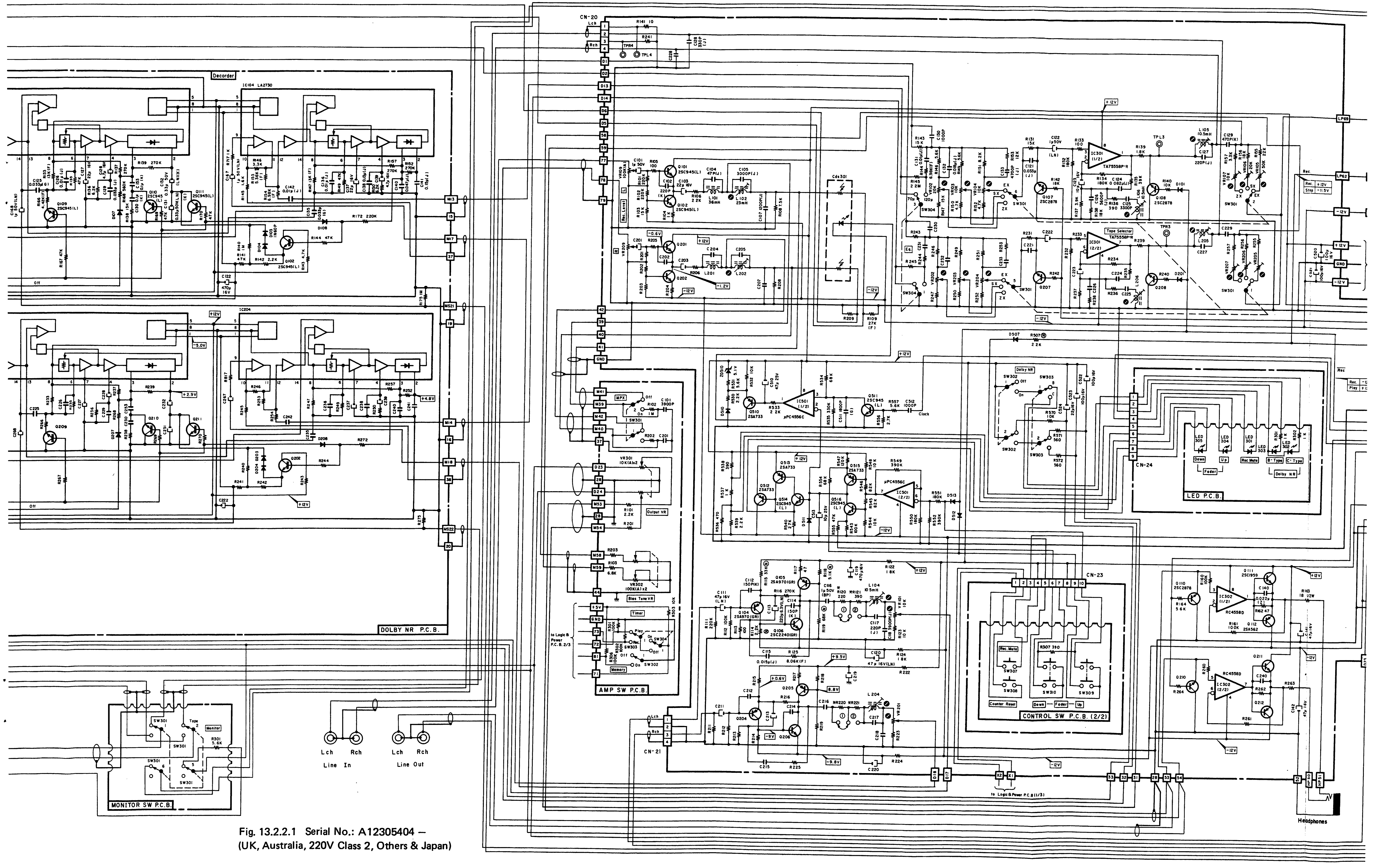
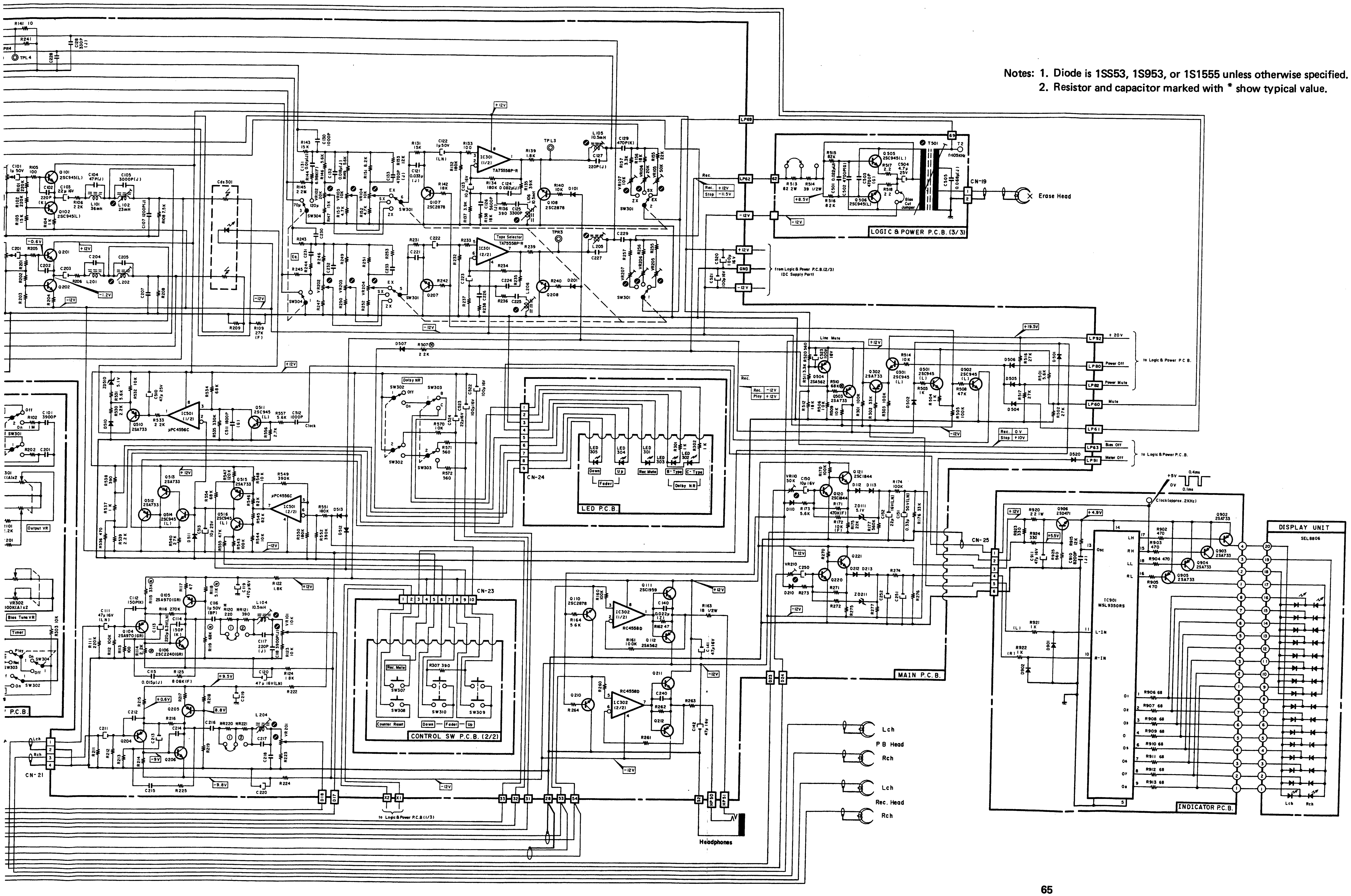

CN-20
Lch
Rch
TPR4
TPL4
Decorder
IC104 LA2730
IC204
DOLBY NR P.C.B.
Off
Rec Level
Eq.
Cds301
IC301 (1/2)
IC301 (2/2)
TA75558P-R
Tape Selector
TPL3
TPR3
SW301
SW304
+12V
-12V
LP69
LP62
Rec
Stop
GND
IC501 (1/2)
IC501 (2/2)
µPC4556C
Clock
Dolby NR
SW302
SW303
CN-24
LED 305
LED 304
LED 301
LED 303
LED 302
Down
Up
Fader
Rec Mute
B-Type
C-Type
LED P.C.B.
MPX
VR301
Output VR
VR302
Bias Tune VR
Timer
Play
Rec
Memory
to Logic & Power P.C.B. 2/3
AMP SW P.C.B.
CN-21
CN-23
Counter Reset
CONTROL SW P.C.B. (2/2)
to Logic & Power P.C.B (1/3)
IC302 (1/2)
IC302 (2/2)
RC4558D
Headphones
MONITOR SW P.C.B.
Tape
Monitor
Line In
Line Out

Fig. 13.2.2.1 Serial No.: A12305404 –
(UK, Australia, 220V Class 2, Others & Japan)

Notes: 1. Diode is 1SS53, 1S953, or 1S1555 unless otherwise specified.
2. Resistor and capacitor marked with * show typical value.



LOGIC & POWER P.C.B. (3/3)
Erase Head
CN-19
T501
from Logic & Power P.C.B.(2/3) (DC Supply Port)
IC301 (1/2) TA75558P-R
IC301 (2/2) TA75558P-R
Tape Selector
SW301
SW304
Cds301
to Logic & Power P.C.B.
Line Mute
Power Off
Power Mute
Mute
Bias Off
Meter Off
IC501 (1/2) µPC4556C
IC501 (2/2) µPC4556C
Clock
Dolby NR
SW302
SW303
CN-24
LED P.C.B.
Down
Up
Rec Mute
B-Type
C-Type
Fader
Dolby NR
CN-23
CONTROL SW P.C.B. (2/2)
Rec. Mute
Counter Reset
Down
Fader
Up
IC302 (1/2) RC4558D
IC302 (2/2) RC4558D
MAIN P.C.B.
CN-21
to Logic & Power P.C.B.(1/3)
Lch
P B Head
Rch
Lch
Rec. Head
Rch
Headphones
CN-25
Clock (approx. 2KHz)
IC901 MSL9350RS
INDICATOR P.C.B.
DISPLAY UNIT
SEL8806
Lch
Rch
Output VR
Bias Tune VR
Timer
P.C.B.

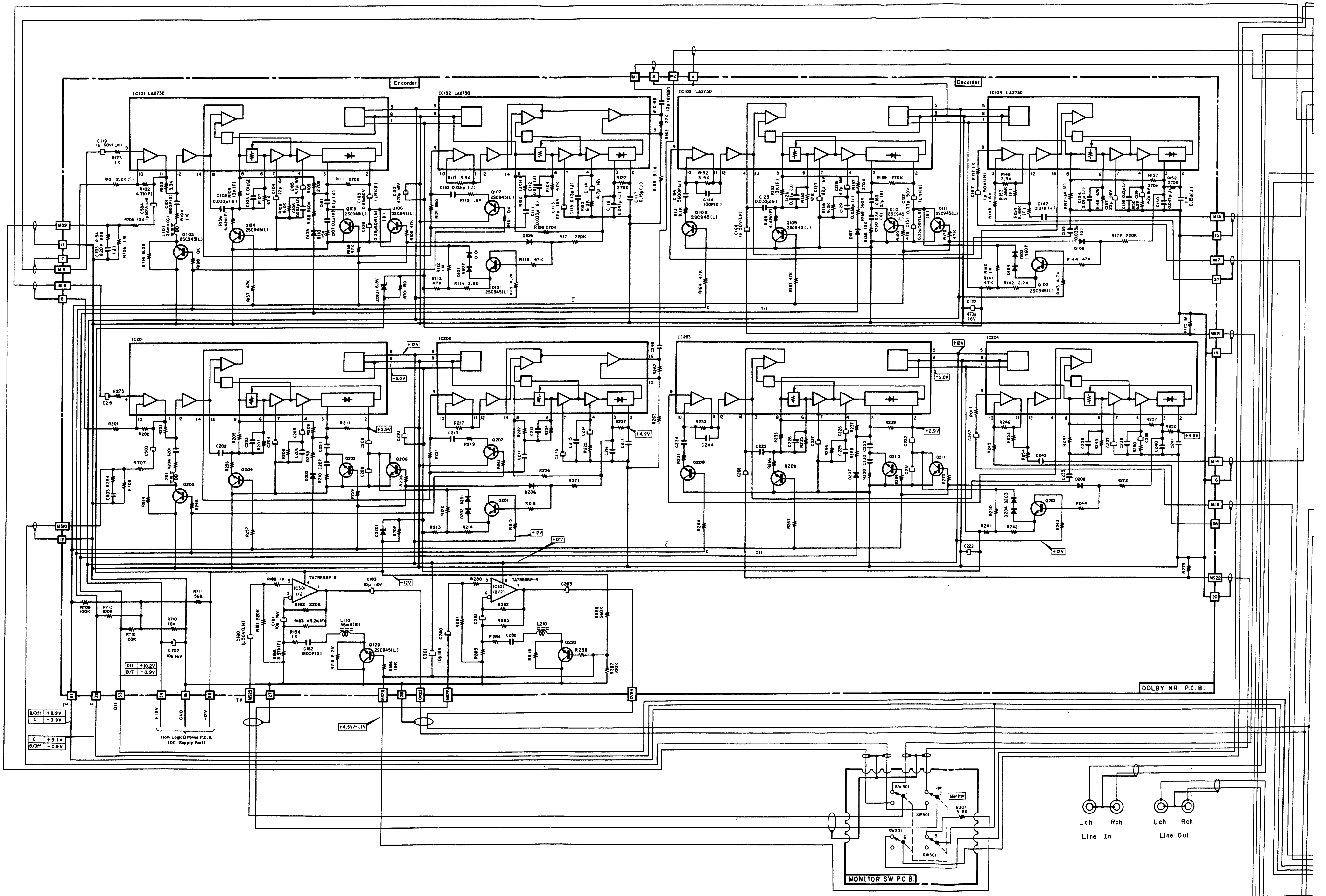

Encorder
Decorder
IC101 LA2730
IC102 LA2730
IC103 LA2730
IC104 LA2730
IC201
IC202
IC203
IC204
TA75558P-R
IC301 (1/2)
IC301 (2/2)
+12V
-5.0V
+2.9V
+4.9V
+4.8V
-12V
Off +10.2V
B/C -0.9V
B/Off +9.9V
C -0.9V
C +9.1V
B/Off -0.9V
+4.5V/-1.1V
+12V
GND
-12V
from Logic & Power P.C.B. (DC Supply Part)
TP
DOLBY NR P.C.B.
SW301
Tape
Monitor
R301 5.6K
MONITOR SW P.C.B.
Lch
Rch
Line In
Lch
Rch
Line Out

Fig. 13.2.2.2 Serial Nos.: A12301001 – A12305403
(UK, Australia, 220V Class 2, Others & Japan)

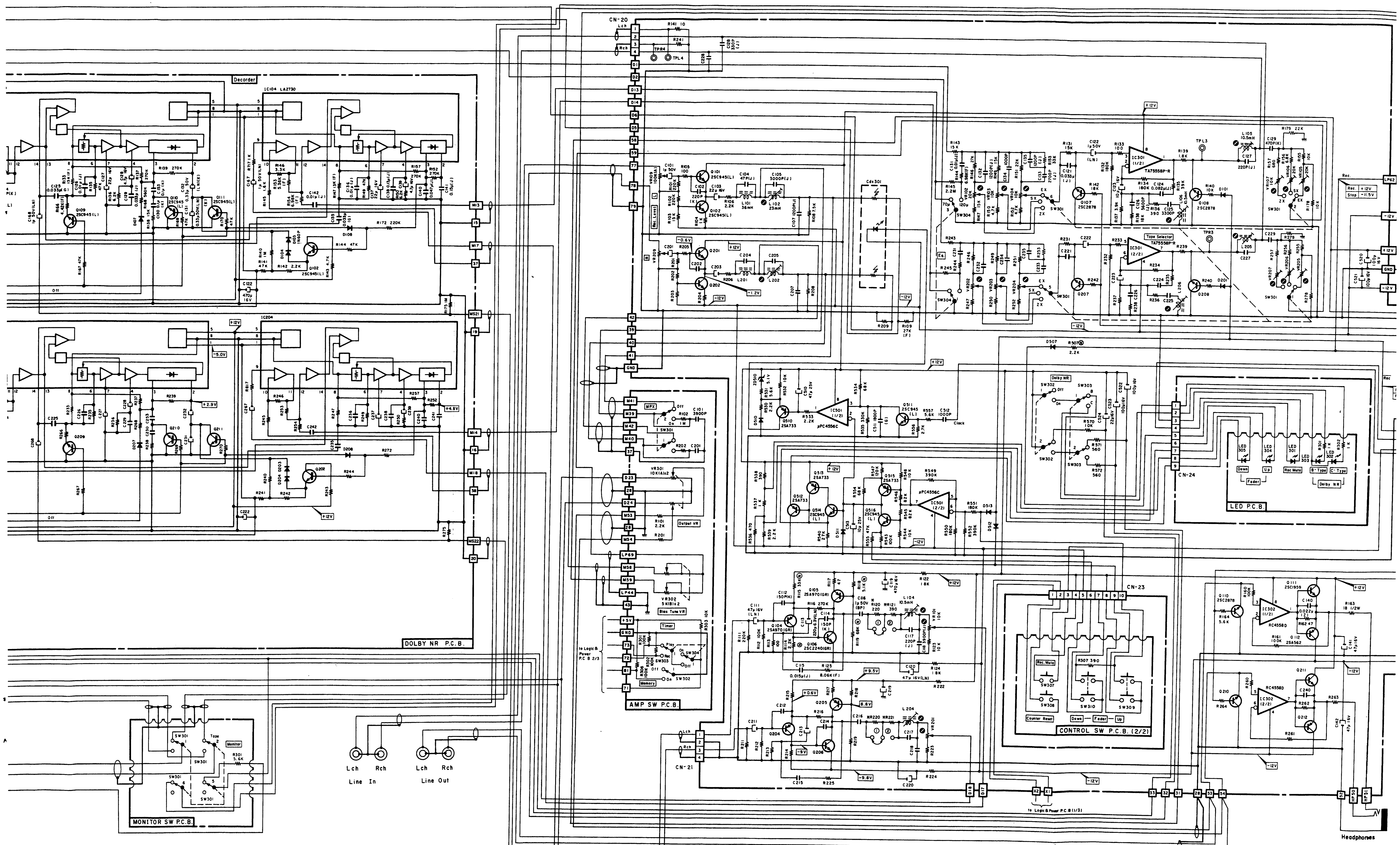
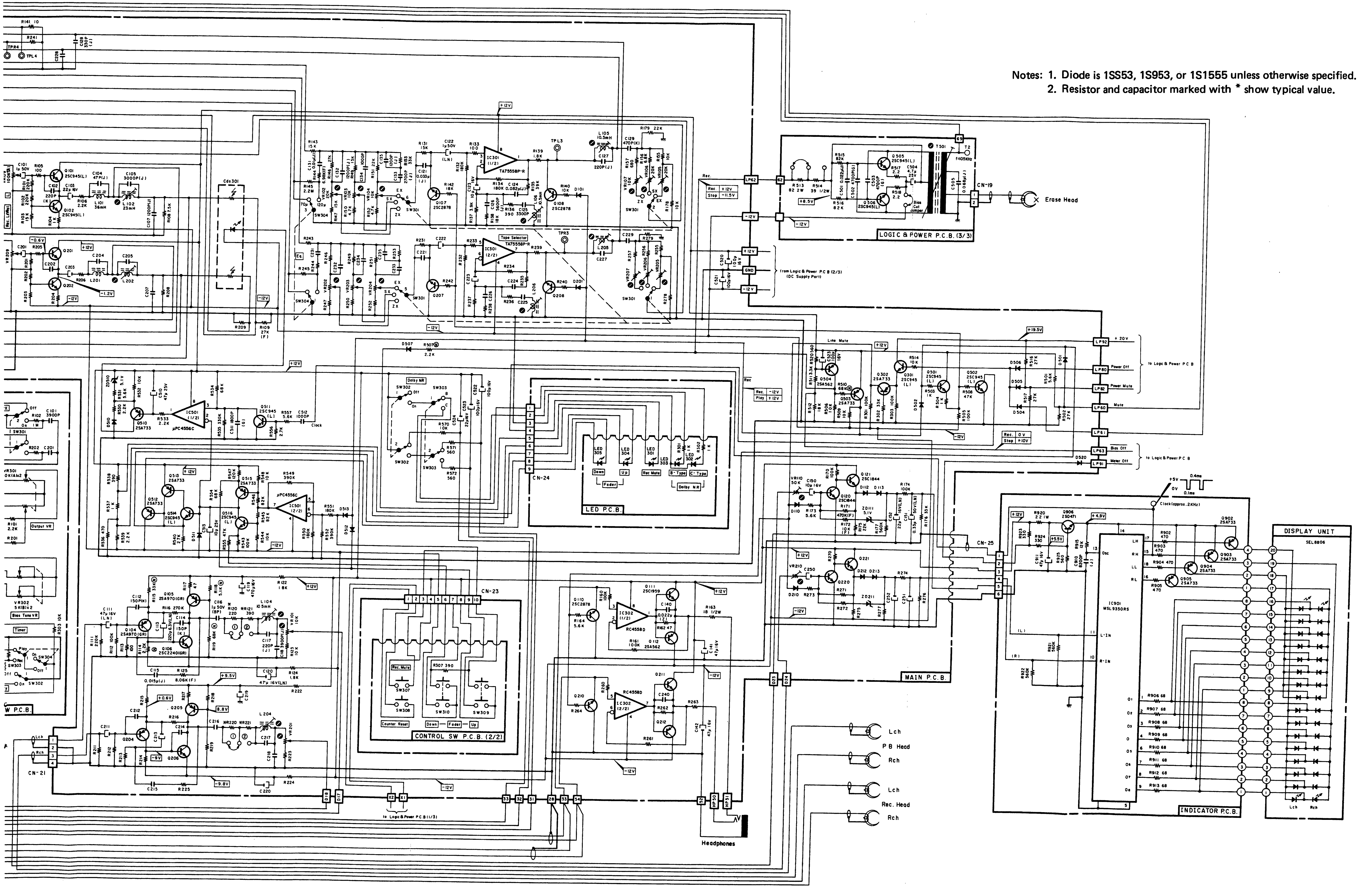

Decorder
IC104 LA2730
IC204
DOLBY NR P.C.B.
MONITOR SW P.C.B.
SW301
Monitor
Tape
R301 5.6K
Lch Rch
Line In
Lch Rch
Line Out
CN-20
TPR4
TPL4
Rec. Level
VR209
MPX
SW301
Output VR
VR301 10K(A)x2
VR302 5K(B)x2
Bias Tune VR
Timer
Memory
SW302
SW303
SW304
to Logic & Power P.C.B 2/3
AMP SW P.C.B.
CN-21
Cds301
IC301 TA75558P-R
Tape Selector
TPL3
TPR3
SW304
SW301
Eq.
Rec. +12V
Stop -11.5V
LP62
IC501 μPC4556C
Clock
Dolby NR
SW302
SW303
CN-24
LED 305
LED 304
LED 301
LED 303
LED 302
Down
Up
Rec Mute
B-Type
C-Type
Fader
Dolby NR
LED P.C.B.
CN-23
Rec. Mute
Counter Reset
R307 390
SW308
SW310
SW309
Down
Fader
Up
CONTROL SW P.C.B. (2/2)
IC302 RC4558D
to Logic & Power P.C.B (1/3)
Headphones

Fig. 13.2.2.2 Serial Nos.: A12301001 – A12305403
(UK, Australia, 220V Class 2, Others & Japan)

Notes: 1. Diode is 1SS53, 1S953, or 1S1555 unless otherwise specified.
2. Resistor and capacitor marked with * show typical value.


LOGIC & POWER P.C.B. (3/3)
Erase Head
CN-19
T501
f=105kHz
Bias Cut Jumper
TA7555BP-R
IC301 (1/2)
IC301 (2/2)
Tape Selector
SW301
SW304
TPL3
TPR3
TPL4
TPR4
Cds301
from Logic & Power P.C.B (2/3) (DC Supply Part)
Rec. +12V
Stop -11.5V
Line Mute
+20V
Power Off
Power Mute
Mute
Bias Off
Meter Off
to Logic & Power P.C.B
Rec. 0V
Stop +10V
Rec. -12V
Play +12V
μPC4556C
IC501 (1/2)
IC501 (2/2)
Clock
Dolby NR
SW302
SW303
CN-24
LED P.C.B.
Down
Up
Fader
Rec Mute
B-Type
C-Type
Dolby NR
CN-23
CONTROL SW P.C.B. (2/2)
Rec. Mute
Counter Reset
Down
Fader
Up
SW306
SW307
SW309
SW310
RC4558D
IC302 (1/2)
IC302 (2/2)
MAIN P.C.B.
CN-21
CN-25
Lch
Rch
PB Head
Rec. Head
Headphones
to Logic & Power P.C.B (1/3)
Clock (approx. 2KHz)
0.4ms
0.1ms
IC901
MSL9350RS
INDICATOR P.C.B.
DISPLAY UNIT
SEL8806
Output VR
Bias Tune VR
Timer
W P.C.B.

13.3. Attention to Servicemen

(1) Parts Replacement

Following parts shall be replaced with the specified ones. Refer to the parts list.

(a) Power Supply Circuit
  Power Cord
  Power Transformer: T1

(b) Power Switch P.C.B. Ass'y
  Power Switch: SW1
  Spark Killer

(c) Logic & Power P.C.B. Ass'y
  Fuses: F401, 402, 403
  Power Transistors: Q401, 404, 408, 410, 414, 607 608, 610, 611, 621
  Diode Bridges: D405, 406
  Fail Safe Type Resistors: R513, 514, 517, 518, 641 669

(d) Main P.C.B. Ass'y
  Power Transistors: Q111, 112, 211, 212, 504
  Fail Safe Type Resistors: R163, 263

(e) Dolby NR P.C.B. Ass'y
  Fail Safe Type Resistors: R701, 702

(f) Shut-off P.C.B. Ass'y
  Fail Safe Type Resistor: R605

(g) Indicator P.C.B. Ass'y
  Power Transistor: Q906
  Fail Safe Type Resistor: R920

(2) Insulation Check

Before returning the repaired LX-5 to a customer, check to insure that the exposed part is accurately insulated from the AC line by measuring the leakage current or the insulation resistance between them.

13.4. IC Block Diagrams

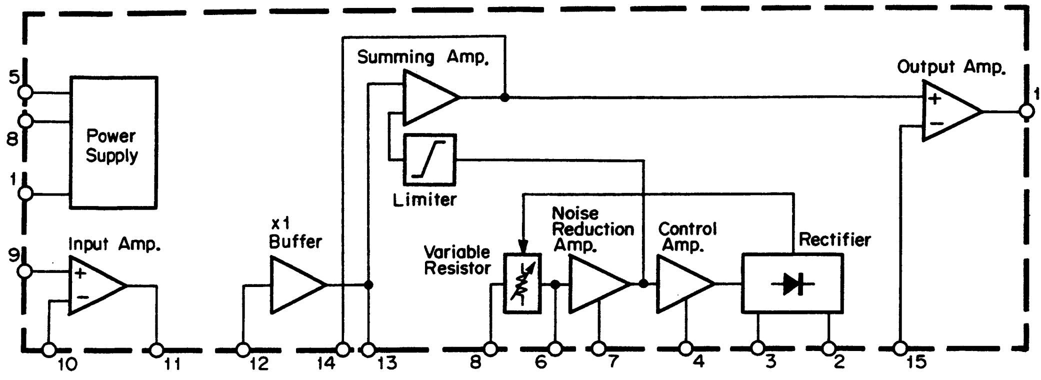

5
8
1
Power Supply
9
Input Amp.
x1 Buffer
Summing Amp.
Limiter
Variable Resistor
Noise Reduction Amp.
Control Amp.
Rectifier
Output Amp.
16
10
11
12
14
13
8
6
7
4
3
2
15

Fig. 13.3 Dolby NR IC μA7300PC, LA2730

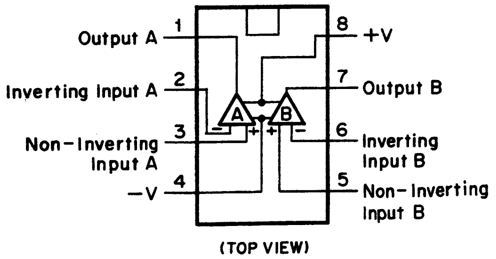

Output A
Inverting Input A
Non-Inverting Input A
−V
1
2
3
4
8
7
6
5
+V
Output B
Inverting Input B
Non-Inverting Input B
A
B
(TOP VIEW)

Fig. 13.4 Operational Amp. IC RC4558D, μPC4556C, TA75558P-R

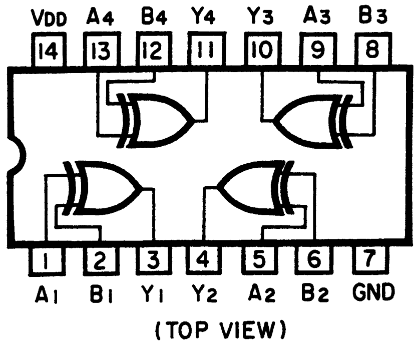

VDD
A4
B4
Y4
Y3
A3
B3
14
13
12
11
10
9
8
1
2
3
4
5
6
7
A1
B1
Y1
Y2
A2
B2
GND
(TOP VIEW)

Fig. 13.5 Exclusive OR Gate C-MOS IC μPD4030BC

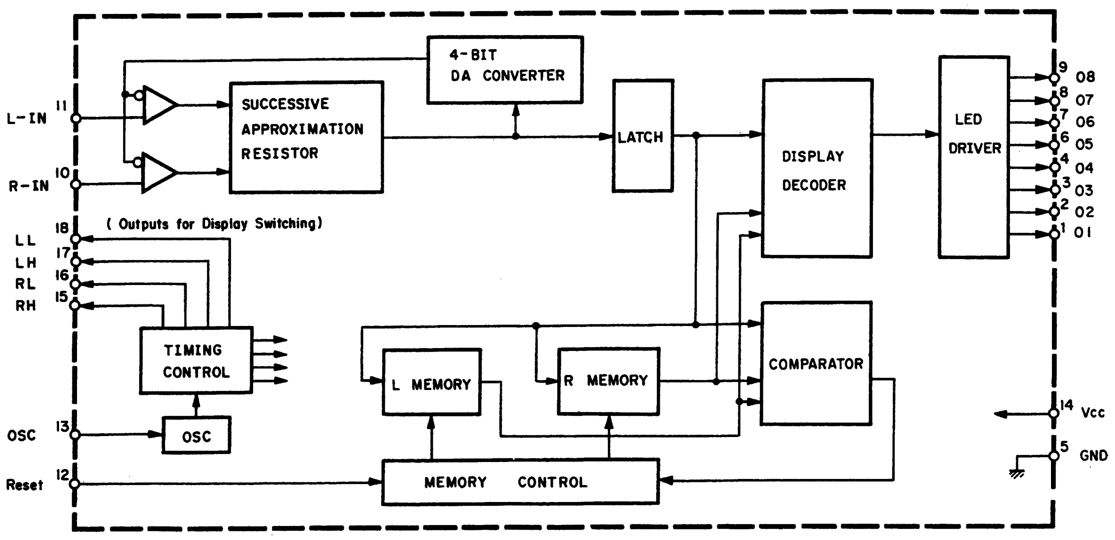
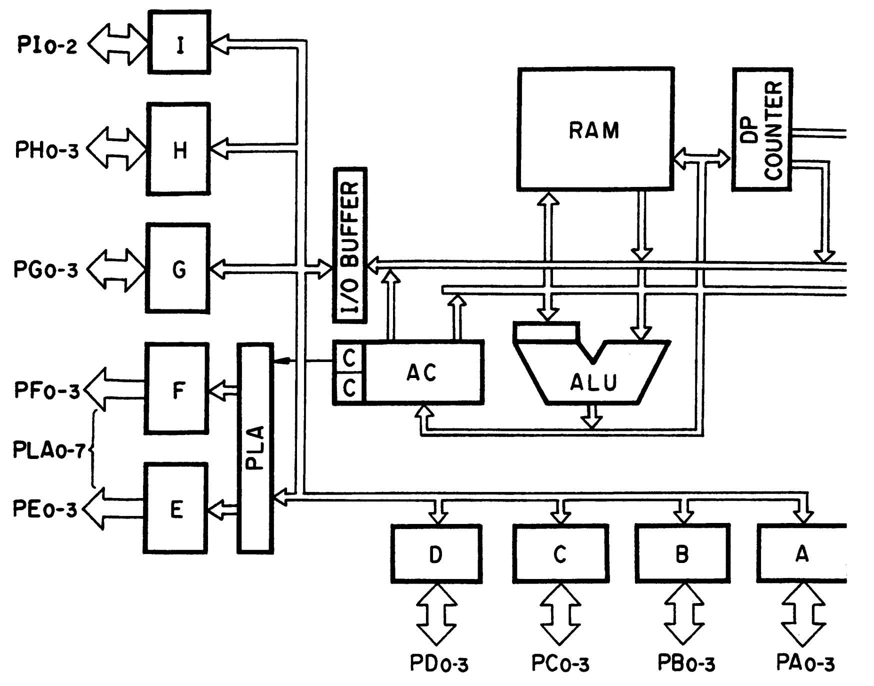
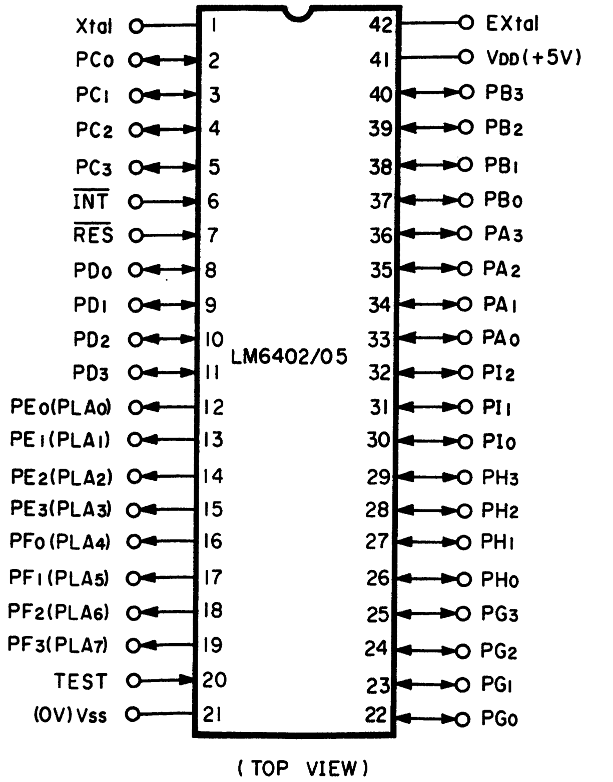

L-IN
11
R-IN
10
SUCCESSIVE APPROXIMATION RESISTOR
4-BIT DA CONVERTER
LATCH
DISPLAY DECODER
LED DRIVER
9 08
8 07
7 06
6 05
4 04
3 03
2 02
1 01
(Outputs for Display Switching)
LL 18
LH 17
RL 16
RH 15
TIMING CONTROL
L MEMORY
R MEMORY
COMPARATOR
OSC 13
OSC
Reset 12
MEMORY CONTROL
14 Vcc
5 GND

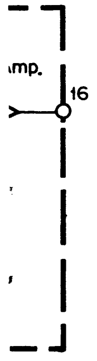
Fig. 13.6 Level Meter Control IC MSL9350RS


PI0-2
PH0-3
PG0-3
PF0-3
PLA0-7
PE0-3
I
H
G
F
E
PLA
I/O BUFFER
RAM
DP COUNTER
C
C
AC
ALU
D
C
B
A
PD0-3
PC0-3
PB0-3
PA0-3

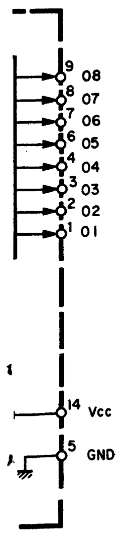

Xtal 1
PC0 2
PC1 3
PC2 4
PC3 5
INT 6
RES 7
PD0 8
PD1 9
PD2 10
PD3 11
PE0(PLA0) 12
PE1(PLA1) 13
PE2(PLA2) 14
PE3(PLA3) 15
PF0(PLA4) 16
PF1(PLA5) 17
PF2(PLA6) 18
PF3(PLA7) 19
TEST 20
(OV) Vss 21
42 EXtal
41 VDD(+5V)
40 PB3
39 PB2
38 PB1
37 PB0
36 PA3
35 PA2
34 PA1
33 PA0
32 PI2
31 PI1
30 PI0
29 PH3
28 PH2
27 PH1
26 PH0
25 PG3
24 PG2
23 PG1
22 PG0
LM6402/05
(TOP VIEW)

Xtal , EXtal : Cry int
$\overline{\text{INT}}$: Int
$\overline{\text{RES}}$: Re
PA0-3 : Bic
PB0-3 : Bic
PC0-3 : Bic
PD0-3 : Bic
PE0-3 (PLA0-3) : Ou
PF0-3 (PLA4-7) : Ou
PG0-3 : Bid
PH0-3 : Bid
PI0-2 : Bid
TEST : Te

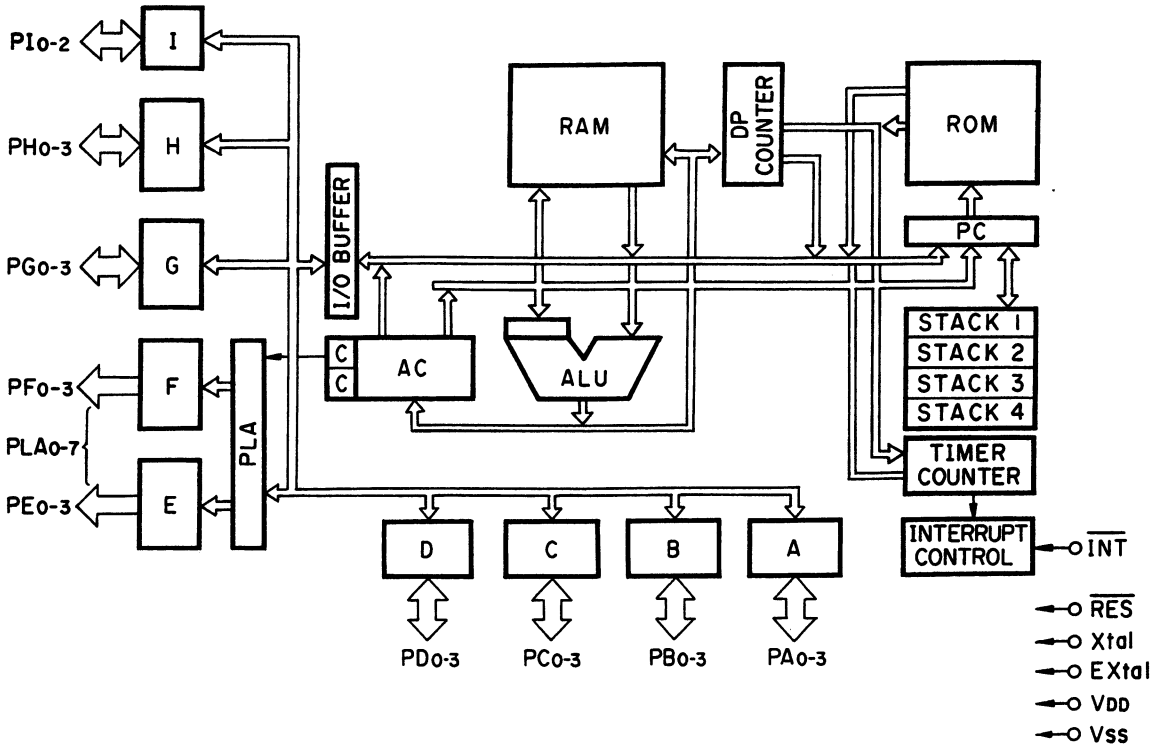
Fig. 13.7 4-Bit Micro-processor LM6402A-052/048



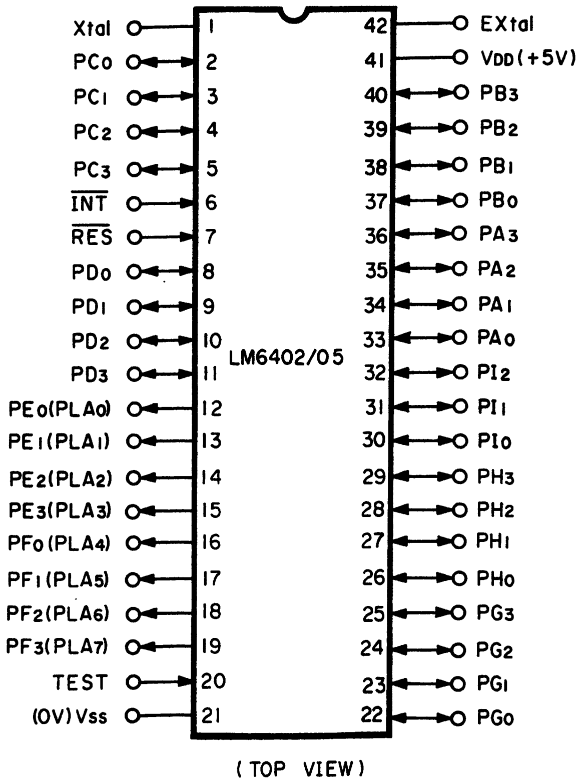
C μPD4030BC



08
07
06
05
04
03
02
01
14 Vcc
5 GND



PI0-2
PH0-3
PG0-3
PF0-3
PLA0-7
PE0-3
I
H
G
F
E
PLA
I/O BUFFER
C
C
AC
RAM
ALU
DP COUNTER
ROM
PC
STACK 1
STACK 2
STACK 3
STACK 4
TIMER COUNTER
INTERRUPT CONTROL
INT
RES
Xtal
EXtal
VDD
Vss
D
C
B
A
PD0-3
PC0-3
PB0-3
PA0-3



Xtal 1
PC0 2
PC1 3
PC2 4
PC3 5
INT 6
RES 7
PD0 8
PD1 9
PD2 10
PD3 11
PE0(PLA0) 12
PE1(PLA1) 13
PE2(PLA2) 14
PE3(PLA3) 15
PF0(PLA4) 16
PF1(PLA5) 17
PF2(PLA6) 18
PF3(PLA7) 19
TEST 20
(0V) Vss 21
42 EXtal
41 VDD(+5V)
40 PB3
39 PB2
38 PB1
37 PB0
36 PA3
35 PA2
34 PA1
33 PA0
32 PI2
31 PI1
30 PI0
29 PH3
28 PH2
27 PH1
26 PH0
25 PG3
24 PG2
23 PG1
22 PG0
LM6402/05
(TOP VIEW)

Xtal , EXtal	: Crystal input for internal oscillator
INT	: Interrupt
RES	: Reset
PA0-3	: Bidirectional Port A0-3
PB0-3	: Bidirectional Port B0-3
PC0-3	: Bidirectional Port C0-3
PD0-3	: Bidirectional Port D0-3
PE0-3 (PLA0-3)	: Output Port E0-3(PLA Output 0-3)
PF0-3 (PLA4-7)	: Output Port F0-3(PLA Output 4-7)
PG0-3	: Bidirectional Port G0-3
PH0-3	: Bidirectional Port H0-3
PI0-2	: Bidirectional Port I 0-2
TEST	: Test

Fig. 13.7 4-Bit Micro-processor LM6402A-052/048

14. S

Track C
Heads
Motors

Power S

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- Dolby
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o $\overline{\text{INT}}$

o $\overline{\text{RES}}$
o Xtal
o EXtal
o V_{DD}
o V_{SS}

ut 0-3)
ut 4-7)

14. SPECIFICATIONS

Track Configuration	4 Tracks/2-Channel Stereo
Heads	3 (Erase Head x 1, Record Head x1, Playback Head x 1)
Motors (Tape Transport)	DC Servo Motor (Capstan Drive) x 1 DC Motor (Reel Drive) x 1
Power Source	100, 120, 120/220-240, 220 or 240 V AC; 50/60 Hz (According to country of sale)
Power Consumption	33 W max.
Tape Speed	1-7/8 ips (4.8 cm/sec) ±0.5%
Wow and Flutter	Less than 0.11% Wtd peak Less than 0.06% Wtd rms
Frequency Response	20 Hz–20,000 Hz (recording level –20 dB, ZX, SX, EXII Tape)
Signal to Noise Ratio	**Dolby C-Type NR on <70 µs, ZX Tape>** Better than 70 dB (400 Hz, 3% THD, IHF A-Wtd rms) **Dolby B-Type NR on <70 µs, ZX Tape>** Better than 64 dB (400 Hz, 3% THD, IHF A-Wtd rms)
Total Harmonic Distortion	Less than 0.9% (400 Hz, 0 dB, ZX Tape) Less than 1.0% (400 Hz, 0 dB, SX, EXII Tape)
Erasure	Better than 60 dB (100 Hz, 0 dB)
Separation	Better than 36 dB (1 kHz, 0 dB)
Crosstalk	Better than 60 dB (1 kHz, 0 dB)
Bias Frequency	105 kHz
Input (Line)	50 mV, 70 k ohms
Output (Line)	1 V (400 Hz, 0 dB, Output Level Control at max.), 2.2 k ohms
(Headphones)	12 mW (400 Hz, 0 dB, Output Level Control at max.), 8-ohm load
Dimensions	450 (W) x 135 (H) x 307 (D) millimeters 17-3/4 (W) x 5-5/16 (H) x 12-1/16 (D) inches
Approximate Weight	8.5 kg 18 lb. 12 oz

- Specifications and appearance design are subject to change for further improvement without notice.
- Dolby NR under license from Dolby Laboratories Licensing Corporation.
- The word "DOLBY" and the Double-D-Symbol are trademarks of Dolby Laboratories Licensing Corporation.